

Australian Debt Securities and Corporate Bonds

What's the risk?

Important considerations for Investors

An independent report prepared for National Australia Bank by the Australian Centre for Financial Studies.

The principal authors of this report are Professor Kevin Davis, Research Director and Martin Jenkinson, Research Officer at the Australian Centre for Financial Studies.



1. Introduction

This is the second in a series of reports on the Australian corporate bond and debt securities market, prepared by the Australian Centre for Financial Studies (ACFS) for NAB.

The first report, *Australian Corporate Bonds*, outlined key features of debt securities, examined the importance of corporate bonds as an asset class for investors, and discussed the reasons they should be considered as part of a diversified investment portfolio. In particular, as an investor ages, weighting investment portfolios more heavily towards debt securities and corporate bonds (relative to company shares) reduces the risk of suffering a major loss of value which cannot be reversed before retirement. The first report can be found at nab.com.au/corporatebonds

Understanding the different types of debt securities and corporate bonds available, the nature of the investment risks involved and what compensation (by way of promised returns) is appropriate can be a challenge for investors. Seeking expert advice is generally warranted, but investors still need to be aware of how risk can be assessed and where relevant information can be found to do so. The objective of this report is to assist investors in that task.

We first consider why companies issue debt securities and corporate bonds and how these risks differ from company shares. As explained in the next section, their higher priority of payment in the event of insolvency means that debt securities and corporate bonds are less risky than shares issued by the same company. However, because there are a variety of debt securities with risks related to their particular characteristics, we consider where they fit on the 'complexity spectrum'. Naturally, greater financial sophistication is needed to assess the risk (and required return) of investing in more complex debt securities. We then consider how to assess the credit (default) risk of a corporate bond – which

depends upon both particular characteristics of the issuer and also upon particular features of the bond. Credit risk is the main risk which needs to be considered by investors in corporate bonds and depends on both the probability of the company failing and on how much may be recouped in the event of failure. While credit risk is the primary risk for investors in corporate bonds, there are also other risks which need consideration. These are outlined in the final section.

While debt securities and corporate bonds can become complex, investors should be aware that many bonds issued into the retail market are relatively straight forward. For example, in June 2012 both Tatts Group and Heritage Bank issued senior unsecured bonds with a fixed maturity date, paid an easily discernible coupon rate and allowed for early redemption only under extreme circumstances.

Some key definitions

Debt securities

Debt securities can be bought and sold between two parties and include key features such as a principal or par amount (amount borrowed), maturity date and an interest rate. Debt securities may have a fixed rate or floating rate of interest and are generally issued by governments, financial institutions, companies or securitisation vehicles.

Corporate bonds

A debt security issued by a corporation and sold to investors. Corporate bonds provide investors with regular interest payments which may be fixed or vary in accordance with a defined benchmark. These payments are backed by the issuing entity's cash flow or in some cases, the company's physical assets that may be used as security for bonds.

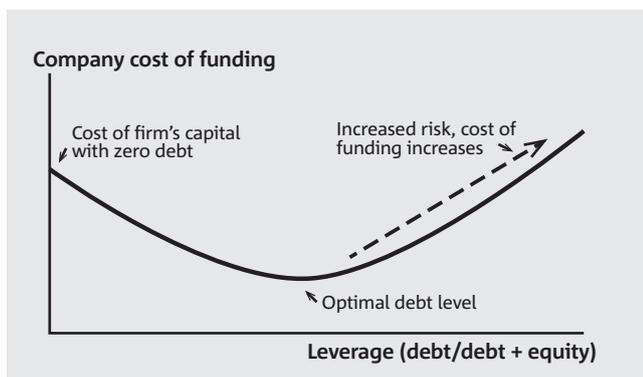
Fixed income or fixed interest security

These terms are used interchangeably. Fixed income securities have a defined rate of interest that must be paid on a specified date. A defining feature of fixed income securities is that because they have a fixed rate of interest, except in the case of default, periodic payments associated with the security do not vary and are known with certainty in advance. This is in clear contrast to company shares that have dividends which are paid entirely on the discretion of the company. Both debt securities and corporate bonds can be forms of fixed income securities.

2. Why do companies issue debt securities?

Debt securities are one source of financing which can be used by companies to fund their operations. The other major sources are equity financing (company shares) and bank loans. Debt (bonds and loans) is often perceived as being a cheaper form of finance than equity because debt holders take on less risk than shareholders. However, increased use of debt can increase the risk of the company being unable to meet the consequent interest and principal repayment obligations. That will cause debt to become more expensive and also increase the risk borne by shareholders. An optimal funding mix is one which minimises the company's overall cost of funding, and will typically involve some mix of equity and debt (bonds and/or loans) and a diversified mix of funding sources.

Figure 1: The effect of debt on a company's cost of funding



Debt (bonds and loans) involves lower risk than equity for the investor because repayments of principal and interest are specified in amount and must be paid prior to any payments to shareholders. Furthermore, if repayments cannot be made, and the company becomes insolvent, debt holders rank ahead of shareholders in claims on the remaining assets of the company. Of course, shareholders take on this greater downside risk because they also benefit (unlike debt holders) from potential upside of investment in a successful company.

Because debt holders and shareholders face risk arising from the fortunes of the company, the analysis of the risk of investing in corporate bonds has many of the same features as analysis of investing in shares of the same company. However, because bondholders only face downside risk, there is more emphasis placed on factors which contribute to that risk rather than upside potential.

Historically, Australian companies have tended to rely more on raising debt finance by way of loans from banks rather than from issue of corporate bonds. In recent times this has begun to change and there is now much more interest in corporate bond financing for several reasons. One reason is that there is a large and growing pool of potential investors, such as self-managed superannuation funds who, as their members age, should be considering greater investment in fixed income securities like corporate bonds. Equally significant is the effect of tighter prudential regulation of banks which will tend to increase the attractiveness of direct issuance of corporate debt to investors relative to loans from banks. Finally, the Australian government is attempting to encourage the growth of the corporate bond market by legislative changes to reduce issuance costs and trading costs.

For investors to gain maximum benefit from this development, it is important that they are aware of the risks involved in investing in different types of corporate securities and can feel comfortable that the promised returns are adequate for taking on those risks. We start with complexity risks, before turning to the important topic of credit risk.

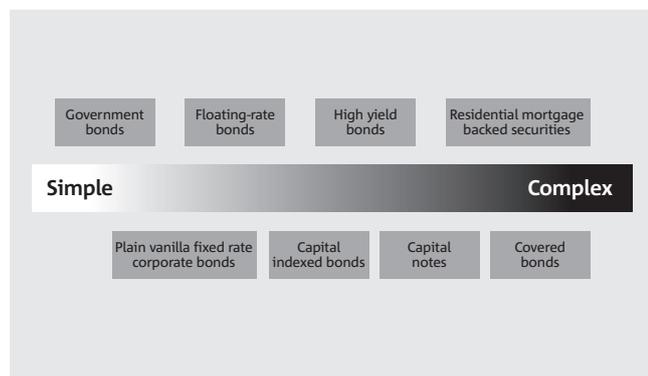
3. The complexity spectrum

Debt securities range in character from very simple to very complex. At the lower end of the complexity spectrum debt securities are relatively straight forward, however it takes a high level of financial sophistication to assess the risks involved in debt securities which are towards the upper end of the complexity spectrum, and these should therefore be approached with much care (or not at all).

At the 'simple' end of the spectrum are government bonds or 'vanilla' corporate bonds which are generally uncomplicated, long term investments which promise regular coupon payments of a fixed amount until maturity of the bond. At maturity the investment is repaid (unless the issuer defaults).

At the opposite end of the spectrum, debt securities may have embedded options or complex structures that require additional focus and effort to assess the risk of the underlying assets or the company issuing the bonds. Many of these more complex debt securities are often only available to wholesale investors, but retail investors should be aware of the types of risks which can arise from features such as variable cash flow arrangements, embedded options, or priority ordering of claims arising from 'tranching' structures. Figure 2 provides a simple illustration of where these particular bonds, lie on the fixed income complexity spectrum.

Figure 2: The fixed income complexity spectrum



The main types of bonds, ordered in terms of increasing complexity are:

Government bonds

These are a medium to long term debt security involving a promise by either the Commonwealth Government or one of the State Governments or Territories (semi-government) to pay a regular income stream via a coupon until a specified maturity date when the principal amount will be repaid. Credit risk is generally perceived by residents of developed country issuers to be zero or minimal – although history (including recent experience in Europe) cautions against always making such an assumption.

Plain vanilla fixed rate corporate bonds

Standard or 'plain vanilla' corporate bonds promise a specified coupon rate and full repayment of principal at a specific maturity date. The credit risk of the issuer is an important determinant of the size of the promised coupon.

Floating-rate bonds

These offer a coupon rate that changes regularly in accordance with movements in a reference rate, such as the 90-day bank bill swap rate (BBSW). The coupon paid on a corporate floating rate bond will be specified as being equal to the reference rate plus a fixed margin (or spread) as compensation for credit risk. To the extent that short term interest rates adjust in line with inflation, such bonds provide some hedge against loss of real purchasing power due to unexpected inflation.

The bank bill swap rate

The bank bill swap rate (BBSW) is the Australian benchmark reference rate. It is calculated daily by the Australian Financial Markets Association (AFMA) as an average rate based on quotes supplied by banks regarding current market interest rates. BBSW is calculated for a variety of maturities such as 30, 60, 90, 120, 150 and 180 days.

Capital indexed bonds

These bonds, for example treasury indexed bonds, are typically issued by governments, and provide protection against inflation. A fixed coupon rate applied throughout the life of the bond and the inflation protection is generated through upward revisions of the principal value of the bond on which the coupon is paid in accordance with movements in the Consumer Price Index (CPI). The coupon rate specified is lower than that on standard fixed rate government bonds, where compensation for expected inflation is implicitly built into the interest rate paid, but the fixed dollar amount of the promised cash flows creates exposure to unexpected inflation.

High yield bonds

High yield bonds, which are also referred to as sub-investment grade or junk bonds, are corporate bonds issued by a company with a credit rating that is deemed to be below investment grade (ie below BBB- from Standard and Poor's or below Baa3 from Moody's). A lower credit rating indicates a higher probability of default and therefore necessitates a higher promised yield to compensate for that risk.

Capital notes

There are a range of hybrid securities issued by companies which can be grouped as capital notes. These have some characteristics of both debt and equity, or some embedded option characteristics, and may be classed sometimes as debt instruments and sometimes as preference shares (not always in the same way by law, accounting standards, and the tax office). These include convertible notes, converting preference shares and stapled securities.

Convertible notes or bonds

These are securities which give the investor the option to convert the security into a fixed number of company shares at a pre-specified price. As the investor has upside exposure to the company share price, the interest rate paid on a convertible bond will typically be lower than on a bond without the conversion option.

Converting preference shares

These are hybrid securities which resemble convertible notes or bonds except that conversion is mandatory and the conversion ratio of ordinary shares received per preference share is unknown in advance. The conversion ratio depends on the ordinary share price at the conversion date and is generally calculated such that each preference share converts into a fixed value of ordinary shares. As the investor can sell the shares received when conversion occurs for cash, these instruments look very similar to debt instruments. As well as understanding the conversion arrangements involved, investors also need to be aware of any other options granted to the issuer, such as a right to early redemption in certain circumstances.

Stapled securities

These hybrid securities are available in Australia, but are not common elsewhere in the world. All of the major Australian banks have issued stapled securities which look much like bonds, but which are legally a preference share. These securities (PERLS issued by CBA, StEPS issued by ANZ, SPS issued by Westpac, and NIS issued by NAB) all involved stapling together a 'loan note' and a preference share which cannot be traded separately. The securities promise a regular coupon payment and repayment of principal at maturity, and hence look much like a bond – although the coupon payment is termed a dividend. Among a number of other distinguishing features, the issuer is able to miss a payment of the promised coupon without it being an act of default. However, they then face restrictions on their ability to pay dividends on their ordinary shares. This feature found in some hybrid securities is sometimes called a dividend stopper.

Residential mortgage backed securities (RMBS)

RMBS provide investors with claims on cash flows from a portfolio of underlying mortgages, but not on the bank which originated and initially funded those mortgages. In Australia the quality of those mortgages, together with other credit enhancements (such as third party insurance against default) has meant that RMBS have been very highly rated.

Covered bonds

Covered bonds are similar to RMBS in that their cash flows are generally derived from a portfolio of underlying mortgages. However, in the case of covered bonds which have only recently been introduced into Australia, investors also have a claim against the issuing bank – should the cash flows from the underlying mortgages prove inadequate to meet promised payments to the investors. Covered bonds have a number of other differences to RMBS, including a fixed maturity – which is achieved by the issuing bank 'topping up' the cover pool of mortgages when some are prepaid early.

4. Assessing credit risk

Credit (default) risk is the most significant risk faced by investors (although its importance obviously depends on the strength of the company involved) – and is the reason that debt securities and corporate bonds promise higher interest rates than government bonds. It is difficult to assess – if for no other reason than that it is about the future.

Issuer or credit risk is the risk that the bond issuer may default on the promised payments of interest and principal when due. The first question to ask is therefore whether a bond issuer can service its debt in a timely manner over the life of the bond. This is referred to as estimating the probability of default (PD). A company where there is a significant risk should be expected to promise a higher coupon interest rate than a company where the default risk is lower. The second question to ask is what is likely to happen if the company defaults – will the bondholder get nothing or something and, if the latter, how long will it take? The shortfall relative to what was promised is often referred to as the loss given default (LGD).

We consider first the risk of default, and it is worth noting immediately that longer term bonds involve greater credit risk, simply because of the longer time period to their maturity. There is, quite simply, more time for something to go wrong before the principal is due to be repaid. Consequently investors should expect a higher credit spread (the promised interest rate relative to that on an equal maturity government bond) for longer term corporate bonds.

For a typical retail investor assessing the credit risk of a bond issuer can be a complex task although there is a plethora of information available via prospectuses, financial reports and information provided via continuous disclosure for listed companies.

One reason why credit risk assessment is so difficult is that it is about the future, whilst prospectuses and annual reports typically contain information about the past and present, and some typically very guarded projections about the future. While that information has been compiled by the company and its advisers on a best efforts basis, it is at best a partial guide to the likely future performance of the company. Investors should read the entire prospectus prior to investing, but the size of prospectuses and level of financial sophistication needed to appropriately interpret the information available can make this a daunting task. Appendix 2 highlights the most important information an investor should check in a prospectus with an explanation of the jargon used.

So, what is an investor to do? As with all asset classes, if in doubt seek professional financial advice, but some analysis along the following lines is also recommended.

In thinking about credit risk, many of the relevant issues are common to assessing the risks associated with an investment in a company's shares – although holders of debt securities and corporate bonds need to be particularly concerned with downside risk. As a first step, it makes sense to consider the environment within which the company operates. Is it domiciled in a country where there are significant economic or political risks? What is the outlook for the industries in which it operates – with regard to such things as future demand, cost pressures and competition? How good is the management and what is the risk that they (and/or the owners) might take actions which disadvantage bondholders?

Next, it is important to understand something about the financial position of the company, and there are a number of key financial indicators which are relevant for assessing risk faced by investors. Many of these can be derived from the company's financial statements – although two important points need to be considered in analysing such information. First, accounting information only provides information about the current and past financial condition of the company – not the future, which is where credit risk resides. Second, interpreting such information needs to be done in the context of comparisons with other similar companies. For example, transport companies are likely to have higher leverage (debt/equity or debt/assets) than software companies because they have more tangible assets which can be sold to repay creditors should the company fail.

Probably the most important indicators are various measures of leverage (or debt ratios) such as debt/equity or debt/assets. A company which relies more on debt financing than its peers in the same industry is, other things equal, more of a credit risk. An alternative indicator often used is the interest coverage ratio (defined as earnings before interest, tax, depreciation and amortisation divided by interest payable) which indicates the ability of the company to meet interest payments from current income.

The company's balance sheet can also provide other useful information. The maturity structure of debt is relevant with over-reliance on short term debt, or a significant concentration of debt maturities, increasing the risk the company might find itself having to rollover large amounts of debt in periods of economic difficulty. Similarly, the company's liquidity position (reflected in the amount of assets which can be easily converted to cash relative to short term liabilities) is also important, with high liquidity reducing the risk of short term cash flow problems. While liquidity and solvency are different concepts, liquidity problems can quickly create solvency problems.

5. Security and ranking (in the event of failure...)

Obviously, a better performing company is likely to be less of a credit risk than poorer performers. Consequently, looking at various measures of profitability, for example, return on equity, is also worthwhile. A range of other measures of operating efficiencies are available, although they can differ markedly across industries because of the nature of the underlying business. Again, comparison with peers is the important consideration.

It is also important to note that while profitability is important, the nature of accrual accounting for non-cash based transactions means that a company that appears profitable can actually be at financial risk if they are generating little cash despite reporting accounting profits. For this reason, it is important to also look at the cash flow being generated by a company to check that it has a logical relationship to the profit being reported.

One further measure of performance which should not be disregarded is the stock market valuation of the company. Stock market capitalisation well above the book (accounting) value of a company's equity is a signal that investors expect that the company will be able to generate future returns above those required on the funds which have been invested in the company. Investors and markets can be wrong, but the market to book ratio (market value of equity relative to book value of equity) is one other indicator worth looking at in assessing potential future performance and credit risk.

Finally, volatility of the company's share price should be reviewed. A company with a very volatile share price is one where investor perceptions of future performance vary markedly over time. Higher volatility implies greater upside and downside risk – and since bondholders are only affected by the latter, higher share price volatility should be interpreted as one indirect indicator of higher credit risk.

As well as the probability of a company failing, the other important piece of the credit risk equation is the answer to the question how much is lost if the company defaults.

Bondholders may recover some or all of their investment if the company that issued the bonds becomes insolvent – that is, can't pay its debts as scheduled. When a company becomes insolvent, its assets may have to be liquidated with the proceeds distributed to those that have a stake in the company. This includes all creditors, including bondholders and shareholders, with entitlements determined by order of seniority. It is important to be aware that the liquidation process, and ultimate recovery of funds, can take some considerable time.

Bondholders and other creditors rank ahead of shareholders in claims on an insolvent company, but within the ranks of creditors, some rank ahead of others, and this will influence the amount each recovers.

Secured or unsecured

If a debt security or corporate bond is secured by quality, tangible assets then the investor has first claim on the proceeds from the sale of those assets and could perhaps expect to receive all monies owed. However, if the debt security or corporate bond is unsecured, the nature of the assets of the company and the level of debt the company has will be relevant. If there are many tangible assets (physical plant and equipment, for example) which can be sold by the administrator or liquidator for reasonable prices, then unsecured bondholders may recoup a significant part of the amount they are owed. Conversely, if the main assets are intangibles such as the directors' valuations of intellectual property, these may turn out to have relatively little value in liquidation.

Ranking in the list of creditors

This can be critical. When a company fails, there is a priority order of claimants, with unpaid entitlements of employees and the tax office ranking at the top, followed by secured creditors. Only when these claims are met, will the residual value of assets be available to meet the claims of those bondholders who are unsecured creditors (along with others, such as trade creditors). Typically unsecured creditors receive a smaller proportion of their claims compared with secured creditors. Subordinated debt ranks behind all other bonds or debt (such as bank loans) in the event of default. Consequently, subordinated debt is inherently riskier and tends to carry a higher interest margin to compensate for the risk. Many hybrid instruments which 'look' like bonds are in fact preference shares, which rank behind all creditors. The last investor to be repaid is equity or holders of shares in the company.

6. Other risks

Figure 3 explains the ordering of payment along with recent examples of debt securities issued. It is important to note that no cash will flow to a lower ranked tier unless the preceding tier is paid in full.¹

Figure 3: Priority of payment in event of liquidation

Security and ranking		
	Recent corporate issuance	Recent financial issuance
Higher ranking ↑		
Term deposits		
Preferred and secured debt		
Unsubordinated and unsecured debt	AFIC Notes Tatts Bonds	Heritage Bank Retail Bonds
Subordinated unsecured debt	APA Group Notes Caltex Notes Crown Notes Colonial Notes Origin Notes Tabcorp Notes AGL Energy Notes Woolworth Notes II	ANZ Subordinated Notes NAB Subordinated Notes Westpac Subordinated Notes
Preference shares		ANZ CPS Westpac CPS IAG CPS
Lower ranking ↓		
Ordinary shares		

Source: National Australia Bank 2013

It is important that investors in corporate bonds or debt securities, which can include preference shares, carefully read the prospectus to determine where on the complexity spectrum a particular security sits and to determine their investment rank in the capital structure of a company? Debt which is lower down the priority ranking should carry greater reward in the form of a higher promised coupon rate.

While credit risk is generally the key consideration for corporate bond investors, they do face other risks.

Interest rate and market value risk

Investors in a floating-rate bond face the risk that the dollar amount of interest payments may vary over the life of the bond in line with movements in the general level of market interest rates. But the good news is that the market value of the bond prior to maturity is unlikely to vary much from its par value, unless there is some marked change in the issuer's credit quality. In contrast, the coupon rate payments on a fixed rate bond are fixed in dollar terms over the life of the bond, but the market value can fluctuate. If, for example, market interest rates decrease, an existing bond with a fixed higher coupon rate determined when it was issued, will increase in value.

Issuer call (or other) options

These may affect the timing, or amount, of future cash flows. For example, some hybrid securities issued by Australian banks may effectively give the issuer some flexibility in determining the ultimate maturity date (such as including an issuer option to call a ten year bond after five years, or an option to redeem or reset terms of the security at some specified reset date).

Liquidity risk

This is the risk that the investor wishes to sell the bond prior to maturity and may find that the market is 'thin' (or non-existent) such that it can only be sold at a discount to what is believed to be its fair value. This has been a significant impediment to retail investment in debt securities and corporate bonds in the past in Australia, where trading has been concentrated in wholesale 'over the counter' markets. Ongoing developments to promote an 'exchange traded' market in debt securities and corporate bonds on the Australian Securities Exchange (ASX) such as exists in company shares, seem likely to reduce the relevance of liquidity risk.

Event risk

Debt securities and corporate bonds may suffer significant losses in value due to an unexpected event affecting the issuing company. Unexpected events may include a natural disaster that has a detrimental impact on the company's ability to operate or a change in regulation. As well as direct effects via the company's profitability, these may trigger clauses in debt securities or corporate bond provisions which enable management to adjust terms of payment. Event risks also include management actions such as issuing more senior debt which reduces existing bondholder priority for payments in the event of the company's failure. It is important to check the debt security and corporate bond provisions (the 'small print') to assess exposure to event risk.

1. One partial exception is that if the sales of assets pledged as security to secured creditors are insufficient to meet their claims in full, they then become unsecured creditors, and rank equally with others, in regard to the residual amount.

2. Appendix 2 in this report provides a quick guide on reading a fixed income security prospectus.

7. Conclusion

Assessing credit risk of debt securities and corporate bonds is a complex specialist task and ultimately the investor is faced with the question of whether the yield offered, is adequate for the risks involved. While individual preferences are relevant in this regard, it is important to compare the promised return with similar products trading in the secondary market. This, at least, gives some perspective on what price other investors are putting on various risks.

In general, use of specialist advisers who have no conflicts of interest is warranted, but there are a number of important indicators which an investor can consider to provide a cross check.

These include:

- What is the leverage of the company (debt/assets or interest coverage ratio) relative to other companies in the same industry?
- How sound is the company's balance sheet (such as indicated by its debt maturity profile or indicators of short term cash flow needs)?
- What type of assets does the company have which would be available for sale in the event of failure?
- Where does the debt security or corporate bond rank relative to other creditors in the event of failure?
- Are there special characteristics of the debt security or corporate bond which create additional risks for the investor?
- If available, what credit rating is the bond assigned by specialist ratings agencies?

In addition ASIC's Regulatory Guide 69: Debentures and notes – Improving disclosure for retail investors (February 2012) provides a checklist of benchmarks which they regard appropriate for issuers of unlisted notes to meet. These are worth taking into account, and are provided in Appendix 1.

Appendix 1

ASIC's Regulatory Guide 69: Debentures and notes – Improving disclosure for retail investors (February 2012)

ASIC suggests a number of benchmarks which issuers of unlisted notes should meet. They involve:

- A minimum equity ratio [equity/(total liabilities + equity)] of at least 8 per cent, or 20 per cent where activities involve significant property development or lending for property development.
- A minimum liquidity position such that cash flow forecasts show that there is cash or cash equivalents available to meet projected cash needs over the next 3 months.
- Clearly explaining to investors what happens at the end of the investment term, including what information will be provided to those considering rolling over their investment for a further term.
- Disclosing the maturity profile of its interest-bearing liabilities and interest rates applicable.
- Where the issuer on-lends funds, disclosing a range of characteristics of its loan portfolio.
- Where the issuer might on-lend funds to a related party, disclosing the nature of the arrangements involved.
- Where the issuer lends money for property-related activities, providing information to investors about current valuations of the underlying property based on appropriate valuation methods.
- Where the issuer lends money for property-related activities, restricting loans to a maximum loan to valuation ratio of 80 per cent (or 70 per cent in the case of property development).

The full Regulatory Guide 69: Debentures and notes – Improving disclosure for retail investors [http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/rg69-published-8-2-2012.pdf/\\$file/rg69-published-8-2-2012.pdf](http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/rg69-published-8-2-2012.pdf/$file/rg69-published-8-2-2012.pdf)

Appendix 2

How to read a prospectus

This appendix highlights the most important information an investor should check in a prospectus or offer document with an explanation of what the jargon really means. It is important to note that prospectuses or offer documents for debt securities and corporate bonds can vary depending on the issuer and that the example below is only an indication of what an investor should look for.

Example offer document for NAB Subordinated Notes			What does it all mean?	
1	Issuer	National Australia Bank Limited ('NAB').	1	This is the company issuing the notes.
2	Offer size	\$1.0 billion, with the ability to raise more or less.	2	NAB is aiming to borrow \$1 billion but reserves the right to borrow more or less.
3	Use of proceeds	The net proceeds of the offer will be used for general corporate purposes.	3	The proceeds can be used as NAB requires. Some prospectuses will indicate a specific capital expenditure for which the proceeds will be used.
4	Minimum application	50 NAB Subordinated Notes (\$5,000) and thereafter in multiples of 10 NAB Subordinated Notes (\$1,000).	4	An investor must buy a minimum of \$5,000 which equates to 50 notes.
5	Issue price	\$100 per NAB Subordinated Note.	5	The cost of a single NAB Subordinated Note is \$100.
6	Term and maturity date	The term of the NAB Subordinated Notes is 10 years and the maturity date is expected to be 18 June 2022 (unless redeemed earlier by NAB – see 'Early Redemption rights for NAB' on page 13).	6	NAB will repay investors in the notes \$100 per note on 18 June 2022 or earlier under certain circumstances.
7	Interest payments	<p>The NAB Subordinated Notes bear interest on their face value at the interest rate from (and including) the issue date to (but excluding) the maturity date or any earlier redemption date. Interest accrues daily and is payable quarterly in arrears on each interest payment date. Accrued but unpaid interest is also payable on the maturity date or on any earlier redemption date.</p> <p>The following dates are interest payment dates: 18 September; 18 December; 18 March; and 18 June.</p> <p>If any of these scheduled dates is not a business day, then the interest payment date will be the next business day. The first interest period will be from the issue date until 18 September 2012.</p>	7	An investor can expect to receive interest payments on the dates specified in this section.
8	Interest rate	<p>The interest rate is equal to the sum of the bank bill rate plus a fixed margin. The margin was determined through the bookbuild and is 2.75% per annum.</p> <p>The bank bill rate is set on the first business day of each interest period (and in the first interest period, it is set on the issue date).</p>	8	The interest rate on these notes is a floating-rate based on a market-determined rate (the variable 90-day bank bill rate) plus a fixed interest margin of 2.75%. The means the interest payments on these bonds will vary with changes in the bank bill rate.

Example offer document for NAB Subordinated Notes		
9	Bank bill rate	The bank bill rate is a benchmark interest rate for the Australian money market. It is based on an average of rates at which major Australian financial institutions lend short-term cash to each other over a 90 day period. It changes to reflect supply and demand in the cash and currency markets.
10	ASX listing	NAB has applied for quotation of the NAB Subordinated Notes on ASX. It is expected that the NAB Subordinated Notes will be quoted under code 'NABHB'.
11	Ranking	<p>The NAB Subordinated Notes constitute direct and unsecured obligations of NAB, which are subordinated in right of repayment to all depositors and unsubordinated creditors of NAB, and rank:</p> <ol style="list-style-type: none"> equally among themselves; equally with all claims against NAB that rank or are expressed to rank equally with the holders' claims for amounts owing by NAB in connection with the NAB Subordinated Notes; behind all claims of Unsubordinated Creditors; ahead of all claims against NAB that rank or are expressed to rank behind the holders' claims for amounts owing by NAB in connection with the NAB Subordinated Notes. <p>The NAB Subordinated Notes do not limit the amount of senior debt, deposits or any other obligations ranking in priority to, equally with or junior to the NAB Subordinated Notes that may be incurred or assumed by NAB at any time.</p>

What does it all mean?	
9	
10	If these bonds are listed, investors will be able to buy or sell these bonds on the ASX.
11	These notes are unsecured which means they are not secured against company property. If NAB becomes insolvent (can't repay their debts) investors in these notes rank below depositors, employees, tax office, liquidators, secured debt and other senior debt but rank ahead of shareholders. It should be noted that NAB may at any time issue more debt that may have higher priority than these notes in the event of insolvency.

Example offer document for NAB Subordinated Notes		
12	Early redemption rights for NAB	<p>Subject to the prior written approval of APRA, NAB has the right to redeem the NAB Subordinated Notes before the maturity date because of certain taxation reasons, the occurrence of a regulatory event or on 18 June 2017, or on any interest payment date falling after that date.</p> <p>There can be no certainty that NAB will choose to redeem the NAB Subordinated Notes, nor that APRA would, if requested, provide its approval in respect of an early redemption.</p> <p>NAB will not be permitted to redeem any NAB Subordinated Note early unless:</p> <ul style="list-style-type: none"> the NAB Subordinated Notes are replaced concurrently or beforehand with a capital instrument of the same or better quality; APRA is satisfied that NAB's capital position is well above its minimum capital requirement after NAB elects to redeem the NAB Subordinated Notes.
13	No early redemption rights for holders of the NAB Subordinated Notes	<p>You do not have the right to request that your NAB Subordinated Notes be redeemed. However, if a winding up default occurs, NAB's obligations under the NAB Subordinated Notes may be accelerated if directed by an ordinary resolution. Outside these limited circumstances, to realise your investment, you can sell your NAB Subordinated Notes on ASX at the prevailing market price (which may be less than the face value).</p>
14	Risks	<p>There are risks associated with an investment in NAB Subordinated Notes, as well as risk associated with an investment in NAB generally.</p>

What does it all mean?	
12	<p>NAB can buy back these bonds before the maturity date provided certain conditions are met.</p>
13	<p>Investors in these bonds do not have the right to ask NAB to repay the face value of the bonds before the maturity date.</p>
14	<p>There are risks involved in all investments. The prospectus will clearly identify risks associated with the specific investment, external risks (eg regulatory and macroeconomic risks) and risks specific to NAB. It is necessary to weigh up the risks and decide if the bond fits your risk return objectives and asset allocation objectives.</p>

Appendix 3

Glossary

Accrued interest

The amount of interest accumulated on a bond from the last coupon payment date.

Asset allocation

An investment strategy that attempts to balance risk versus reward by adjusting the percentage of each asset in an investment portfolio.

Asset class

A group of investments that display similar characteristics.

Bank bills

A short-term money market investment.

Basis point

A measure used to calculate interest returns. One basis point equals one hundredth of one per cent or 0.01%.

Benchmark

An index which measures the change in value of a market over a period of time.

Buy and hold strategy

A passive investment strategy whereby the investor intends to retain the investment until maturity.

Capital markets

A group of markets in which investors can buy and sell various debt and equity securities.

Commonwealth Government securities

Debt securities issued and guaranteed by the Commonwealth of Australia. The Commonwealth guarantees the coupon payments and the return of the original capital at the maturity date.

Convertible bond

A traditional fixed income style security that gives the investor the right to convert into ordinary shares of the company at redemption.

Corporate bond

A debt obligation (bond) issued by a corporation, either senior secured, senior unsecured or subordinated.

Corporate bond market

A secondary market for investors to buy and sell corporate bonds.

Coupon rate

The rate of interest paid by the issuer of a bond. The rate is usually expressed as a percentage of the face value of the security.

Credit default swap

A form of insurance against the risk of default by the issuer of a specified corporate bond.

Credit rating

An assessment of an entity's credit worthiness.

Credit risk

Credit risk is an assessment of the likelihood that a company issuing a bond may default on its obligation to pay interest or repay principal.

Credit spread

A spread is the difference in yield between two securities. A credit spread generally measures the degree of risk between 'risk free' assets, (i.e. Commonwealth Government securities), and lower rated assets.

Derivative

A financial instrument or contract based on (derived from) an underlying financial asset.

Duration (modified duration)

A measure of the sensitivity of a bond's price or market value to a change in interest rates.

Face value or principal

The amount that the issuer borrows which must be repaid to the investor at maturity. Also known as par value.

Fixed income investment

A financial instrument that can be bought and sold between secondary parties that has a defined rate of interest which must be paid on a specified date to avoid default.

Fixed rate bond

Bond on which the coupon rate has been set at the time of issue and will remain fixed for the life of the security.

Floating-rate note

A debt security that has a variable coupon, equal to a money market reference benchmark plus a quoted margin.

Hybrid security

A financial instrument that shares characteristics of both debt and equity securities.

Inflation-linked bond

A bond created to provide protection from the risk of inflation.

Issuer

Borrower (government, financial institution or company) that issues the bond (that is, borrows the money) and pays the interest.

Liquidity

The ease with which an asset can be bought or sold in the market without significantly affecting the price. A liquid bond can be bought and sold more easily than an illiquid one.

Maturity

The end of a bond's life, when capital must be repaid to the investor.

Over-the-counter

Off-exchange trading that is done directly between two parties.

Perpetuals

A floating rate note with no specific maturity date.

Retail investor

An investor that does not meet the criteria of a wholesale investor.

Secondary market

A market in which previously issued financial instruments such as stock, bonds, options, and futures are bought and sold.

Secured debt

Secured debt is debt in which the borrower pledges some assets as collateral.

Sub-investment grade bond

A corporate bond rated below BBB- or Baa3 by the credit rating agencies or with no rating. Also known as high yield bond or junk bond.

Subordinated debt

Debt that ranks behind the liquidator, government tax authorities and senior debt holders in the hierarchy of creditors. It should be noted that in the case of liquidation or bankruptcy the holders of subordinated debt rank ahead of equity or shareholders.

Unsecured debt

Unsecured debt has no collateral backing from the borrower.

Wholesale investor

Generally either a professional investor/firm or an individual with more than \$2.5 million in assets and an income of more than \$250,000 over two years.

Yield

The coupon or interest payment on a bond expressed as a percentage of the bond's market value or price.

Yield curve

A line that maps the yields on comparable bonds (for example, bonds issued by the same borrower) of different maturities (1 year, 2 year, 10 years, etc).

Yield to maturity

The rate of return earned by an investor assuming that the bond will be held until maturity and that all coupon and principal payments will be made on schedule.

About the Australian Centre for Financial Studies

The Australian Centre for Financial Studies (ACFS) is a not-for-profit consortium of Monash University, RMIT University and Finsia (Financial Services Institute of Australasia) which was established in 2005 with seed funding from the Victorian Government. Funding for ACFS is also derived from corporate sponsorship and through research partnerships such as the one with the National Australia Bank which has led to this report.

The mission of the ACFS is to build links between academics, practitioners and government in the finance community to enhance research, practice, education and the reputation of Australia's financial institutions and universities, and of Australia as a financial centre.

Contact

Professor Deborah Ralston
Executive Director
Australian Centre for Financial
Studies
Level 43, 80 Collins Street,
Melbourne Vic 3000
T: +61 3 9666 1050

Professor Kevin Davis
Research Director
Australian Centre for Financial
Studies
Level 43, 80 Collins Street,
Melbourne Vic 3000
T: +61 3 9666 1050

Martin Jenkinson
Research Officer
Australian Centre for Financial
Studies
Level 43, 80 Collins Street,
Melbourne Vic 3000
T: +61 3 9666 1050

australiancentre.com.au

National Australia Bank

Contact

Steve Lambert
Executive General Manager
Debt Markets
T: +61 2 9237 1150
E: steve.lambert@nab.com.au

John McClusky
Managing Director
Head of NAB Income & Investment Solutions
T: +61 3 8641 5238
E: john.m.mcclusky@nab.com.au

nab.com.au

This document is independent research written by ACFS and is distributed by National Australia Bank Limited ABN 12 004 044 937 (AFSL 230686) ('NAB') for information purposes and does not constitute financial product advice. This is not an offer to buy, sell or provide any product or service described herein. So far as the law allows, neither ACFS, NAB nor its related bodies corporate or any of their officers, employees, agents, advisers or contractors warrants or represents that the information in this document is accurate, reliable, complete or contemporary. To the extent permitted by law, NAB shall not be liable for any loss or damage which may be suffered by any person relying upon this document or any information (including by way of negligence or misrepresentation) arising from or in connection with information contained in this document.

Analyst Disclaimer: The information accurately reflects the personal views of the author(s) about the securities, issuers and other subject matters discussed, and is based upon sources reasonably believed to be reliable and accurate. The views of the author(s) are independent of the views of the NAB Group. No part of the compensation of the author(s) was, is, or will be, directly or indirectly, related to any specific recommendations or views expressed.

Published July 2013