

**BANFIELD ON BONDS**

**Part II – RISK AND RETURN**

**In any investment, there must be potential reward for any risk taken. An investment in debt is no different.**

In Part I we discussed the various issuers and instruments available to a debt investor. As you may have picked up, those issuers and instruments described all had a different level of inherent risk which is generally dependent on the industry and environment they operate in and any features specific to the issue.

Each issuer and instrument will have a different place along the Risk/Reward frontier – *fig. 1*. In an efficient market, there will be a greater reward received, in the form of a higher return, for the more risk taken.

Companies operating in the private sector are inherently more risky than the New Zealand Government or Local Authorities. This is because they have to succeed in a competitive marketplace to generate profits to pay their debt obligations and ultimately their shareholders. The higher level of risk assumed by bond holders in companies is – or should be – compensated for by the higher returns.

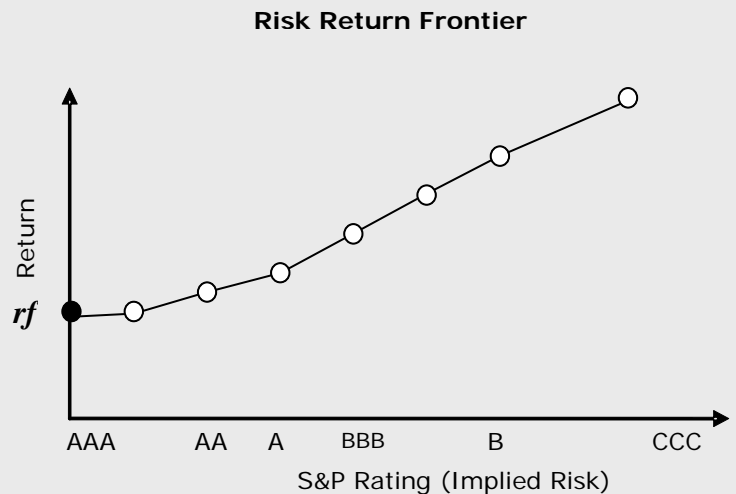
For example, the New Zealand Government is far more secure than any publicly listed company.

**‘A common mistake made by fixed interest investors is to imply a level of risk based on the return’**

The likelihood that the New Zealand Government will default on any of its NZ dollar financial obligations is so remote that we can regard the investment as being risk free. This is reflected in the AAA rating given to the New Zealand Government on its NZ dollar obligations by

independent rating agencies such as S&P<sup>1</sup>. As such, the New Zealand Government and any other equivalently rated issuer, sits at point *rf* (**risk free rate**) on the *Fig. 1*.

*Fig. 1* depicts this theoretical relationship or trade-off between risk and return<sup>2</sup>. Practically, this ‘frontier’ is not so easy to construct but it does give the reader a graphical representation of this relationship.



*Fig. 1*

The exact level of risk for one particular fixed interest security cannot easily be quantified. However, an assessment can be made on the level of risk inherent in one security relative to another.

A common mistake made by fixed interest investors is to imply a level of risk based on the return of an investment without looking at the returns paid by relative borrowers. This mistake is most prevalent when the instrument and/or issuer is not rated.

In the absence of a credit rating by a reputable agency, the only way to ensure that the level of risk taken with one investment is comparable with that of another is for an investor to conduct their own credit analysis or **due diligence**.

Importantly though, this due diligence process should not be restricted to those issues that do not carry a rating as it is always good to try and understand the numbers and environment behind any investment.

<sup>1</sup> Standard & Poors (S&P), Moodys and Fitch are the three most common and reputable international rating agencies providing a credit rating to Governments, Local Authorities and Corporates. This credit rating measures the credit-worthiness of the issuer. These three rating agencies have a slightly different scale encompassing a series of letters and/or numbers e.g. AAA, Aaa, Baa1 Each ranking provides a likelihood or probability of default by the issuer on it's financial obligations. For the purposes of this topic, it is sufficient to know that a AAA, or Aaa is the highest rating available and is given to issuers capacity to pay interest and repay principal is extremely strong.

<sup>2</sup>The relationship depicted by *Fig. 1* assumes identical issue structure of issue's across ratings.



**CONDUCTING DUE DILIGENCE**

**It is through the due diligence process that you can ensure the reward justifies the risk.**

For those who have no idea where to start or for those who find the idea of looking into a company's balance sheet or financial statements daunting, here is a simple checklist – see below – which includes questions to ask about the operating environment plus a couple of quick easy financial ratios, designed to help steer you around the icebergs of the fixed interest investment world.

- ⊙ What is the nature of the issuers business? Is this a business that operates on large cash flow but low margins? Does the industry require large expense on capital and suffer from depreciation? Is the market the business operates in extremely cyclical?

These questions should help you create a view of the environment the company operates in and give you an indication of the pressures the business could come under.

- ⊙ Is the company listed on a recognised stock exchange? If so, what has been the recent trend for the share price of the issuer?

This is an important independent guide as to the value that the market places on the portion of the business that ranks after debt holders. i.e. shareholders.

- ⊙ What flow of information will the investor receive about the issuer? What signals will an investor get if things begin to deteriorate?

Are the debt obligations of the issuer secured or unsecured and if secured, what assets of the company is the debt secured over and how many other debt obligations are secured over the same assets? Remember in Part I we talked about Debentures being secured over the assets of the company but pointed out the need for investors to question the value of those assets. In the case of subordinated debt, how much senior debt ranks ahead?

**'When business and the economy is going well, the business should have no trouble meeting its financial obligations**

- ⊙ What covenants has the issuer entered into? In what instances can interest be suspended and are there penalties if the issuer does so?
- ⊙ What are the redemption features of the issue? Is the issue only redeemable in cash or can shares in the company be issued on redemption?

Now to the financials. Two of the more commonly used financial ratios designed to measure the degree of indebtedness and the ability of a company to service debts are provided below<sup>3</sup>.

- ⊙ **Debt Ratio** – this ratio is a measure of financial risk by determining what proportion of the company's assets have been financed by debt – the degree of indebtedness. The higher the ratio, the higher the level of company debt.

The formula:

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

E.g. A company with total debt of \$6m and total assets of \$18m

$$\text{Debt Ratio} = \frac{6 \text{ million}}{18 \text{ million}}$$

$$\text{Debt Ratio} = 0.33 \text{ or } 33\%$$

With a ratio of 0.33, this indicates that the company has financed 33% of it's assets with debt compared to 66% through equity or otherwise.

- ⊙ **Interest Cover Ratio** is a ratio used to determine how easily a company is able to pay the interest bill on outstanding debt.

<sup>3</sup> The financial ratios provided are discussed in a general sense designed to indicate the concepts themselves used in quantifying the financial strength of a company. Interpretation of results may vary between investors due to individual's propensity for risk.



**Conducting Due Diligence continued...**

The formula:

$$\text{Interest Cover Ratio} = \frac{\text{E.B.I.T}^*}{\text{Interest Expense}}$$

\*E.B.I.T = Earnings Before Interest and Tax

e.g. A company with an EBIT of 16.8m and an interest expense of 7.5m

$$\text{Interest Cover Ratio} = \frac{16.8 \text{ million}}{7.5 \text{ million}}$$

$$\text{Interest Cover Ratio} = 2.24$$

A ratio of 2.24, what does this mean? This tells us the company in the example at present has sufficient current earnings to cover the interest expense 2.24 times.

If a company had a ratio of less than 1 this would indicate that the company is not generating sufficient returns to satisfy its interest expense. Obviously, a company in this position is likely to be facing some financial difficulties at this point.

**What do these two ratios tell us?** These ratios attempt to quantify the issuer's likely ability to continue servicing its debt in the event of an economic downturn. How do they do this?

The higher the level of debt, the more highly 'geared' the company is. The **Debt Ratio** will help indicate this level of 'gearing' or leverage.

Highly geared companies use debt because it is a cheap source of funding – relative to equity. When business and the economy are going well, the business should have no trouble meeting its financial obligations. However, as business begins to slow down, there is an increased risk

that the cash flows generated from the assets of the business no longer cover the interest expense.

A company's ability to cover the interest expense is reflected in the **Interest Cover** ratio.

Results from both of these ratios are most meaningful in light of the company's line of business - that is defining what is a reasonable level of debt will be a function of the industry the issuer operates in. This is why the results should be compared to that of other firms operating in a similar environment.

The best source of the above information, including the financials for use in the ratio formulas are the company's investment statement and prospectus in the case of a new issue or most recent financial reports in the case of a currently listed instrument.

The concepts covered here are designed to help quantify the level of inherent risk found in a potential fixed interest investment.

Hopefully as an investor you will be able to use this to ensure the level of risk in a particular investment is warranted by the returns. This will apply no matter where you are along that risk frontier, i.e. a Government bond or capital note investor.

***It is important to remember there is no one measure that will provide a black and white answer when analysing an investment. This checklist has been provided to give a starting point for the task but is by no means exhaustive.***

One of the best ways to deal with risk is diversification. This is something we will look at more closely in the Part IV - Portfolio Construction. In the meantime, look out for the next edition where we will cover the mysteries of fixed interest valuation and that ever mysterious relationship between price and yield.

**To contact our Wholesale Team please call *FREE 0800 800 372 (press 2)***  
**The Direct Broking Wholesale Team are: *David Speight (Director), Andrew Mackinder (Senior Wholesale Dealer), Thomas Banfield (Wholesale Dealer) and Amelia Wilkins (Wholesale Dealer Assistant)***



**Disclaimer**

The information contained herein (including in any links) has been prepared by Direct Broking and is based upon information obtained from sources that Direct Broking believes to be reliable. In preparing this document Direct Broking has relied upon and assumed, without independent verification, the accuracy and completeness of all source information. However, the accuracy, reliability and completeness of the information in this document cannot be and is not guaranteed by Direct Broking. Direct Broking will not be liable for any loss arising as a result of the information contained herein not being accurate, reliable or complete.

Investment products involve investment risks, including the potential loss of the principal amount invested. The information contained herein (including in any links) does not constitute a recommendation on the suitability to your investment objectives of any investment products or any strategy referred to herein. Any such investment may not be appropriate or fit for the purpose for which you may wish to purchase it. Any investment decisions made by you will be based solely on your own evaluation of your financial circumstances and investment objectives. If you are uncertain about any aspect of any investment referred to herein or its implications to you, Direct Broking recommends that you seek independent expert advice.

