FII

CERTIFICATE IN
FIXED-INCOME INVESTING

# Session 4 - Fixed Income Investing

# Credit Rating

# Concept of Credit Rating

When A is giving a loan to B, he would like to know the credit-worthiness of B.

For an individual, it may be gauged from the CIBIL score obtained from tracking his payment history.

For a corporate, it is much more complex, it is not just the history. It involves studying the industry, business cycles, fundamentals and profitability of the company, projected cash-flows of the company, etc.

It is done by specialized rating agencies with professional skills.

Credit Rating is your reference point of the opinion given by the rating agency about the credit-worthiness of the company rated.

# What is credit rating?

- Credit rating can be considered as a *reasonably good* proxy for the credit quality of a fixed income security.
- To be noted, the credit quality of one particular Issue may be different from the fundamentals of the Issuer; there are several ways in which credit quality of an Issue may be enhanced.
- It is not the final word on credit quality; it is a research-based *opinion* of professionals.
- What a credit rating measures is credit risk – or more specifically, the risk of default. When we talk of default, there are two reasons why this may occur:
- The Issuer does not have the money to repay.
- The Issuer has adequate money, but doesn't want to.

# Usage of Credit Rating

When you are investing in a bond / debenture, you would look at the credit rating to gauge the credit worthiness of the bond issuing company.

When you are investing in a bond fund, you would look at the credit rating of the securities in the portfolio to gauge the credit quality of the fund.

When you are selling a bond or a bond fund, you would show the credit rating to your client to convey the credit quality.

In fine, the rating agency is your ‘representative’ to analyse the issuing company and give an opinion about the likelihood of repayment of the instrument.

# Which are the agencies?

CRISIL Ltd (CRISIL)

- It is the first and leading credit rating agency of the country, incorporated in 1987. Standard & Poor (S&P), the well-known U.S. based rating agency, is now the majority shareholder in CRISIL.

ICRA Ltd (ICRA)

- It was the country's second credit rating agency and was set up in 1991. Moody's, another leading U.S. based rating agency, is now a large shareholder in ICRA.

India Ratings - formerly known as Fitch Ratings India Private Ltd

- Fitch is another leading U.S. based rating agency and has set its office in India.

# Credit Analysis & Research Ltd (CARE)

- It is a rating agency with majority shareholding by leading domestic banks and financial institutions in India.

Brickwork Ratings India Private Ltd (Brickwork)

- Brickwork Ratings, a Bangalore based credit rating agency, is founded by bankers, credit rating professionals, former regulators as well as professors.

SME Rating Agency of India Ltd (SMERA) Name changed to Acuite

- It is a joint initiative by SIDBI, Dun & Bradstreet Information Services India Private Limited (D&B) and several leading banks in the country. It is focused primarily on the Indian MSME segment.

Infomerics Valuation and Rating Pvt. Ltd

- Latest one to be approved, relatively small

**‘AAA’** Highest degree of safety regarding timely servicing of financial obligations. Carry lowest credit risk

**‘AA’** High degree of safety regarding timely servicing of financial obligations. Carry very low credit risk

**nvestment Grade**

**‘A’** Adequate degree of safety regarding timely servicing of financial obligations. Carry low credit risk

**‘BBB’** Moderate degree of safety regarding timely servicing of financial obligations. Carry moderate credit risk

**‘BB’** Moderate risk of default regarding timely servicing of financial obligations

**‘B’** High risk of default regarding timely servicing of financial obligations

**Speculative Grade**

**‘C’** Very high risk of default regarding timely servicing of fi obligations

**‘D’** In default or are expected to be in default soon

# Clarifications About Rating Scale

Plus (+) or minus (-) sign may be added after a rating to denote the relative position. For example, AA+ is higher than AA and AA is higher than AA-.

+ or - sign is considered as one rating notch. For example, AA+ is higher than AA- by two notches.

Credit Rating of AAA to BBB is investment grade.

Ratings below BBB are speculative grade.

This is for long term instruments i.e. maturity more than 1 year.

We will now see the rating scale for Short Term Debt Instruments.

**A1**

- Very strong degree of safety regarding timely payment of financial obligations
- Carry lowest credit risk.

**A2**

- Strong degree of safety regarding timely payment of financial obligations
- Carry low credit risk.

**A3**

- Moderate degree of safety regarding timely payment of financial obligations
- Carry higher credit risk.

**A4**

- Minimal degree of safety regarding timely payment of financial obligations
- Carry very high credit risk.

**D**

- In default or expected to be in default on maturity

# Concept of credit spreads

The ‘spread’ of a security is the excess yield of that security over that of some other security.

Simply put, if you have two securities A and B, the spread of B over A is the additional return that you will demand for investing in security B rather than in security A.

There can be several reasons for such a spread to occur.

Assuming a similar maturity, the most common reason for a spread to arise is credit risk.

Credit risk is the risk of default by the issuer of the security.

# CRISIL Default Study

| One, Two & Three Year Cumulative Default Rates between 1988 & 2015 | | | | |
|---|---|---|---|---|
| Rating | Issuer - Months | One-Year | Two-Year | Three-Year |
| CRISIL AAA | 16,565 | 0.00% | 0.00% | 0.00% |
| CRISIL AA | 36,605 | 0.03% | 0.27% | 0.77% |
| CRISIL A | 47,606 | 0.56% | 2.31% | 4.79% |
| CRISIL BBB | 101,414 | 1.09% | 2.98% | 5.72% |
| CRISIL BB | 149,114 | 4.17% | 8.64% | 13.07% |
| CRISIL B | 131,122 | 7.95% | 15.85% | 21.82% |
| CRISIL C | 7,034 | 20.06% | 32.84% | 40.42% |
| Total | 489,460 | | | |

*Source: CRISIL Ratings*

# CRISIL Cumulative Default Rate (CDR)

| One, two and three-year CDRs (2008-2018) | | | | |
|---|---|---|---|---|
| Rating category | Issuer-months | One-year | Two-year | Three-year |
| CRISIL AAA | 10,851 | 0.00% | 0.00% | 0.00% |
| CRISIL AA | 26,815 | 0.02% | 0.09% | 0.18% |
| CRISIL A | 50,012 | 0.20% | 0.95% | 1.91% |
| CRISIL BBB | 159,514 | 0.86% | 2.13% | 3.83% |
| CRISIL BB | 262,180 | 3.54% | 7.47% | 11.21% |
| CRISIL B | 236,578 | 8.01% | 15.91% | 21.98% |
| CRISIL C | 8,353 | 20.56% | 33.64% | 41.16% |
| Total | 754,303 | | | |

*Source: CRISIL Ratings*

# ICRA CDR till March 2019

Table 12: Average Cumulative Default Rates (Cohorts starting April 1, 2009)

| | CDR-1 | CDR-2 | CDR-3 |
|---|---|---|---|
| [ICRA]AAA | 0.2% | 0.4% | 0.6% |
| [ICRA]AA | 0.0% | 0.1% | 0.2% |
| [ICRA]A | 0.3% | 0.8% | 1.4% |
| [ICRA]BBB | 2.3% | 4.6% | 6.8% |
| Investment Grade | 1.4% | 2.9% | 4.3% |

# CARE CDR

Table 2: CARE's Issuer Weighted Cumulative Default Rates for the period March 2008 - March 2018

| | One year | | Two Year | | Three Year | |
|---|---|---|---|---|---|---|
| Rating Category | Avg. No. of Issuers | CDR | Avg. No. of Issuers | CDR | Avg. No. of Issuers | CDR |
| AAA | 59.2 | 0.00% | 57.1 | 0.00% | 54.4 | 0.00% |
| AA | 159.2 | 0.06% | 149.4 | 0.45% | 140.8 | 0.98% |
| A | 334.6 | 0.36% | 303.1 | 1.32% | 272.6 | 2.66% |
| BBB | 968.2 | 1.63% | 900.8 | 3.70% | 832.0 | 5.75% |
| BB | 1052.7 | 4.47% | 906.7 | 7.54% | 775.8 | 9.80% |
| B | 521.4 | 7.65% | 425.4 | 11.31% | 359.4 | 13.18% |
| C | 24.1 | 23.24% | 24.3 | 30.14% | 24.0 | 30.73% |

# Concept of ‘pricing’ of bonds

In bond market parlance, ‘pricing’ means the yield.

If the valuation yield is 7.34% for a AAA rated bond or 7.85% for a AA+rated bond, that is the ‘pricing’.

In common parlance, ‘pricing’ means the price per se. For a bond, whereall the parameters like coupon rate, coupon payment dates, maturity date etc. is known, the only variable is the yield or YTM.

Once that is known, it is easy to calculate the corresponding price inrupees for that yield or YTM%.

For an Issuer making a primary issue of bonds, the coupon / yield offeredis the important parameter. The face value or maturity value is just a relevant number.

# Pricing of credits by the Issuer (primary)

For an Issuer making a primary issue of bonds, the objective is to minimize costs by raising resources at the lowest possible yield required to make the Issue a success.

The variables for this pricing are:

1. Credit Rating: higher the rating, lower the cost i.e. yield.

There are be exceptions to this, driven by the goodwill of the Issuer.

A relatively lower rated Issuer also may raise resources at a relatively lower cost, if they command a goodwill, and vice versa.

2.Current market sentiments: If the current market situation is buoyant e.g. inflation is low, the RBI is easing policy rates, system liquidity is high, etc. then the cost of the Issuer will be low.

If interest rate is lower today than say a year ago, it helps the Issuer in pricing the issue to that extent. If interest rate is higher today than a year, it is that much adverse for the Issuer.

While companies would like to time their issuances to favourable market conditions, it is also a matter of business cycles.

There is a cost of borrowing and it is justified when the business is expanding.

When business is expanding, in a booming economy, interest rates normally tend to move up.

3. Current Demand-Supply situation: if there is a bunching of issuances at a particular time, it would not be an opportune time to launch an Issue.

If the canvas is blank, it helps the Issuer to that extent.

# Pricing of credits by the market (secondary)

Once the Issuer makes the issuance and it hits the market, secondary market pricing is driven by:

1. Credit Rating: as a thumb rule, higher the rating, lower the yield. There are exceptions to this.

2. Perception (subjective): it is not just the credit rating, but the wholesale market participants' perception of that Issuer.

3. Discounting of potential future events: Markets are forward looking and any potential future development in the company, either positive or negative, is reflected in current market pricing.

4. Current market situation: general market sentiments like interest rate movement, liquidity, etc. influence market pricing.

# Quiz

Which of the following is NOT a recognized credit rating agency in India?

A. CARE Ratings
B. Brickwork Ratings
C. IndiaRatings
D. None of the above

Number of credit rating agencies in India is:

A. 5
B. 6
C. 7
D. 8

# Quiz

Which of the following is the lowest investment grade rating?

A. AAA
B. AA
C. A
D. BBB

When determining credit risk spread, the benchmark security is most likely:

A. AA rated corporate bond
B. AAA rated corporate bond
C. Central Government bond
D. State Government bond

# Quiz

Which of the following is the most important component of credit risk?

A. Default risk
B. Credit spread risk
C. Downgrade risk
D. None of the above

All instruments of a given rating, say AA, carry:

A. The same risk profile
B. Depends on the rating agency
C. Depends on the track record of the company
D. Carry different risk profiles, as the rating is only an opinion

# Thank You