



Credit Spread Introduction

Credit Spread



- Credit spread curve is attachable to a base curve to reflect the credit quality of an entity.
- Each single credit spread curve is made additive upon the others.
- For example, the AA curve will be the summation of the base treasury curve + the AA credit spread curve etc.
- This can make sure that the spread do not go negative at any point.

Credit Spread



- Spread curve is bootstrapped from fixed income securities as a spread over a specified zero curve for a certain credit state.
- Analogous to the bootstrapping procedure, a zero discount curve is generated from the market prices of a series of specified instruments.
- Each spread curve is correspond to the spread over a reference curve for a particular credit state.
- First bootstrap AAA spread. Then place the spread along with the reference curve for the AA spread. The AA spread is then be bootstrapped as an additional spread over the AAA spread.

Credit Spread



- Solve the spread based on market price and the reference curve
- Assuming that we have constructed the first $j-1$ nodes on the spread curve, the next (j -th) node in the sequence is assessed in terms of the number of its cash flows that occur between the maturity of the last instruments in the sequence and the maturity of the present instrument.

Credit Spread



- Bootstrapping instruments consist of bonds of any types.
- The instruments must be ordered on the basis of increasing term to maturity.
- The maturity of each instrument represents a unique node on the resulting spread curve.
- The first instrument in this ordering must have only one cashflow payment remaining between the current date and the maturity date.



Thank You

You can find more details at

<https://finpricing.com/lib/EqConvertible.html>