# Efficiently Calculate the Unexpected Losses from Potential Counterparty Defaults

The Investment Firms Prudential Regime (IFPR) presents investment management firms with an ideal opportunity to save capital for counterparty risk by moving away from the '8%-method' and adopting the relatively simple but effective internal method. Failing to do so simply leaves money (in the form of unnecessary prudential capital allocation) on the table. MC+ has developed a counterparty risk model (CpR+), which provides both analytically meaningful and managerially useful information. Furthermore, CpR+ will:

• demonstrate how the firm complies with the 'use-test' requirement by improving the firm's understanding of the counterparty risk drivers; and

• provide important and useful management information to support decision-making and be the central piece for setting metrics for the firm's counterparty risk policies.

Most investment firms have two sources of counterparty risk – from their receivables and cash held with a bank. Expected loss (EL) from a counterparty default is computed as Exposure x PD x LGD (where PD and LGD stand for probability of default and loss given default. However, expected losses are only potential losses "on average" and therefore is much smaller than unexpected losses (UL). From prudential regulatory perspective, the 8%-method is a proxy for the unexpected losses.
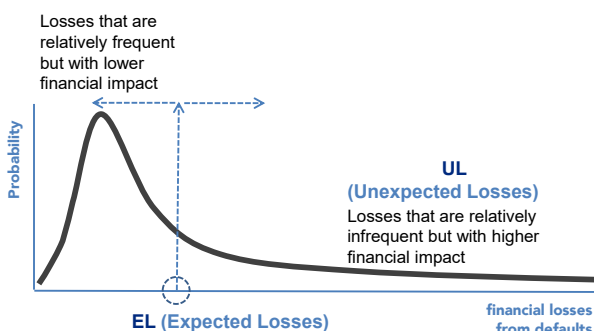

The 8%-method is flat, not risk-sensitive and does not take account of a counterparty's risk profile. Therefore, the international regulators came up with an alternative method: the Internal Ratings Based (IRB) method. Firms subject to IFPR are interested in estimating a risk charge for counterparty risk at the 99.5% confidence level for which CpR+ uses a simplified IRB method.

The calculations show that below the B+ rating, the IRB calculation produces a lower capital requirement than

the 8% method, applied to non-rated or non-banking counterparties, e.g. counterparty risk from receivables.
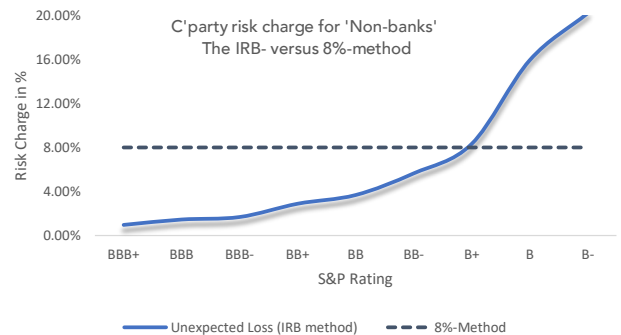
For a rated banking counterparty we have to compare the IRB method with 1.6% (i.e. 1.6% = 20% of 8%).
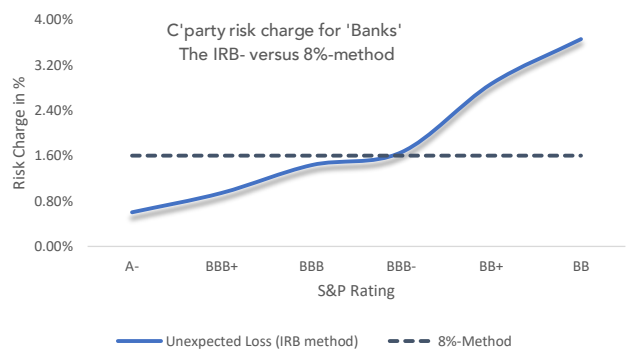
The calculations show that below BBB- the IRB method produces a lower capital requirement than 1.6%. Cursory research shows that most larger banks in the UK have better credit ratings. The picture below shows implementation of the IRB method:
https://cpr.riskplus.net/

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