

## **Credit risk – the issues of handling it**

How to calculate risk in accordance with various laws and standards is not difficult per se; if you have a finance degree or have read a tutorial on the subject, calculating risk using the models popularized today is not that difficult. It does not take that much time to code it in say MATLAB/R, or alas, in VBA/Excel as many are keen on doing (alas). Concerning the legal side, that is where your lawyers from compliance step in.

The problem as I perceive it lies in the models and processes used on a day-to-day basis, and the issues/problems involved in deviating from them (even though we should). My take on the matter is however, to note and learn what is problematic with the credit risk models used today, and protect your business from their said flaws. It's like the situation with the naked emperor; most of us know he is naked, but pointing it out is not that easy. Our whole system is based on flawed assumptions, and one firm/company cannot fix that overnight.

Let us take different examples regarding credit risk issues and discuss them one by one.

**Data quality.** A big issue, acknowledged by many market participants, is the quality of data that we run our tests on. How often does a firm/bank actually default? Compared to how many times you close a transaction and can calculate returns. Running tests on credit default events and scenarios is thus problematic when you use models that depend on historic data; there is not enough data points.

**The models.** As discussed in previous articles, one can and should question the soundness of many of the models used in the world of finance, and those for credit risk calculations (ex. the mortality model approach) in particular, especially due to the data quality problem discussed above.

**The soft problems.** It is less sexy to discuss matters that cannot be connected to phrases involving the word "quant". But "soft" issues such as communication and organizational structures are important to consider; it will be a critical issues when an event which is as value destructive as a credit event happens. There are no do-overs for when you sit on a badly protected portfolio and a large credit event happens. It would be especially disheartening if the problem originates in bad co-ordination and communication in the company, especially in issues relating to risk management.

**Interconnectivity of contracts.** One may also ask how equipped the models used are to interconnectivity of contracts during certain

situations; we have for example seen the liquidity squeeze on Credit Default Swaps (CDS) during the crisis of 2008. As we are on the subject of CDS:s, we should also mention that how well such an instrument works depends on the assumption that the entity selling the protection has a risk of defaulting that is not connected (correlated if you will) to that of the entity one is buying protection against.

**The rating agencies.** The revenue model of rating agencies is problematic, as their main income comes from the companies to be rated. We assume per default that no bias issues are there, yet we know how unrealistic that is. But what would the market do without these ratings? Establishing different source to use as decision basis is a sound first step. Better internal control in these rating agencies is a good second step.

What are the alternatives, to the issues discussed above? That would be for you, us and the rest of the market to try and figure out. Research is not only the area of academia; it would do your firm good to put more effort on research.

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