CAMELS – Capital Adequacy / Economic Capital

Whilst Regulatory Capital (RC) is the amount of capital a bank has to hold, given regulatory guidance and rules, Economic Capital (EC) refers to the amount of risk capital a bank´s management estimates the institution may require to remain solvent within a given confidence level (probability) over a certain, pre-defined period.
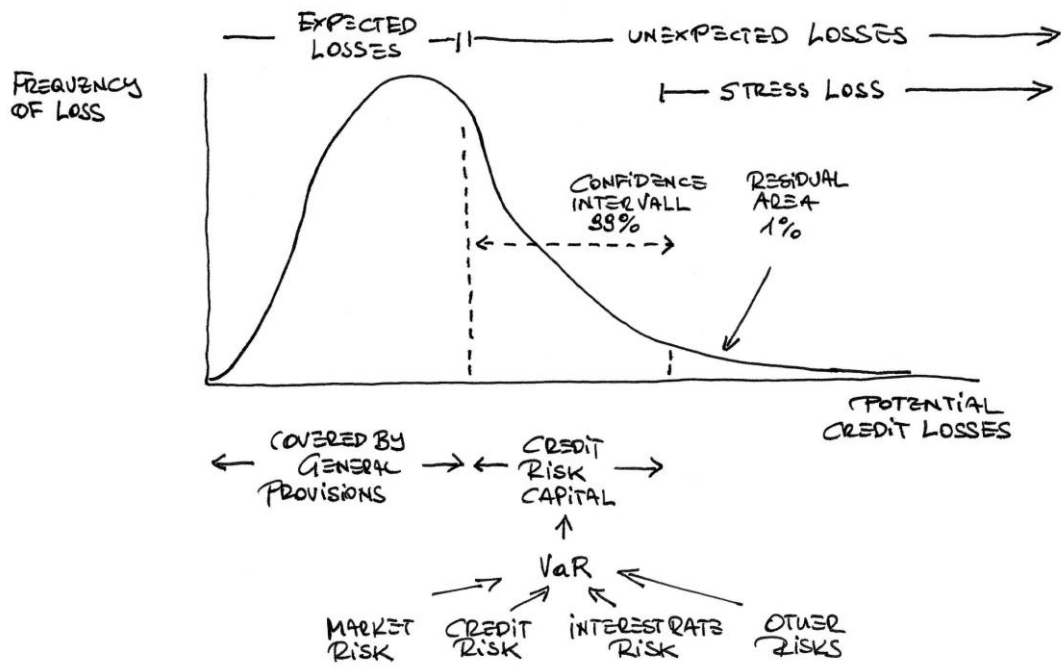
The amount of EC held and how it is allocated across divisions is a management decision, whilst essential to support a bank´s business. EC reflects a bank´s own perspective on its business. It therefore differs from RC minimum capital requirements addressing a bank´s risk spectrum under a range of regulatory rules. In contrast to this, EC measures risk using economic realities rather than rules or regulations, is bank-specific, an internal measure, whereby no common definitions exist. Of course, estimates on required EC can be covered by elements of the Basel III-defined capital layers (Tier 1, Tier 2, Tier 3).

Any bank will suffer and have to deal with losses, especially from its loan portfolio, which are entirely normal cost of doing banking-related business: These "normal", expected losses are covered by a bank´s provisioning and its pricing policy. - EC, however, foremost addresses the coverage of so-called unexpected losses, which are more unlikely to occur. Whereby, some of those unexpected losses may be extremely unlikely ("black swans"): Covering them as well would just be too expensive and from a commercial point of view uneconomic, and not reasonable. Within these constraints, bank management has to estimate the amount of EC required so that an institution´s insolvency will be extremely unlikely over a certain period of time. For this purpose, management has to set appropriate parameters: Accordingly, the likelihood of an insolvency occurring is usually set with less than 1 per cent (sometimes 5 per cent), whilst such event happening within different periods, such as 1 day, maybe 2 weeks, by times also 20 days.

Value at Risk (VaR) is a commonly applied methodology to estimate the amount of EC required. By calculating VaR (addressing the issue: What is the most I can lose with a given certainty over a certain time?), financial institutions can determine whether sufficient capital reserves are in place to cover losses. However, they can also measure whether higher-than-acceptable risks require them to reduce concentrated holdings. Due to the complexity of banks´ balance sheets, deriving VaR is an equally complex task, whereby focus is on the downside risk and potential losses.

Hence, the calculation of VaR requires an estimate of probability of each asset´s loss, with a confidence interval set over a fixed time period: Thereby individual risks have to be represented in probability distributions, then the correlation across these risks as well as assets assessed, and their impact valued. In regards to risks, items such as market-incurred risks, interest rate changes, equity market volatility and economic growth are – among others - considered.

FREQUENCY OF LOSS

EXPECTED LOSSES —|| — UNEXPECTED LOSSES →

|— STRESS LOSS →

CONFIDENCE INTERVALL 99%

RESIDUAL AREA 1%

POTENTIAL CREDIT LOSSES

← COVERED BY GENERAL PROVISIONS → ← CREDIT RISK CAPITAL →

VaR

MARKET RISK   CREDIT RISK   INTEREST RATE RISK   OTHER RISKS

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