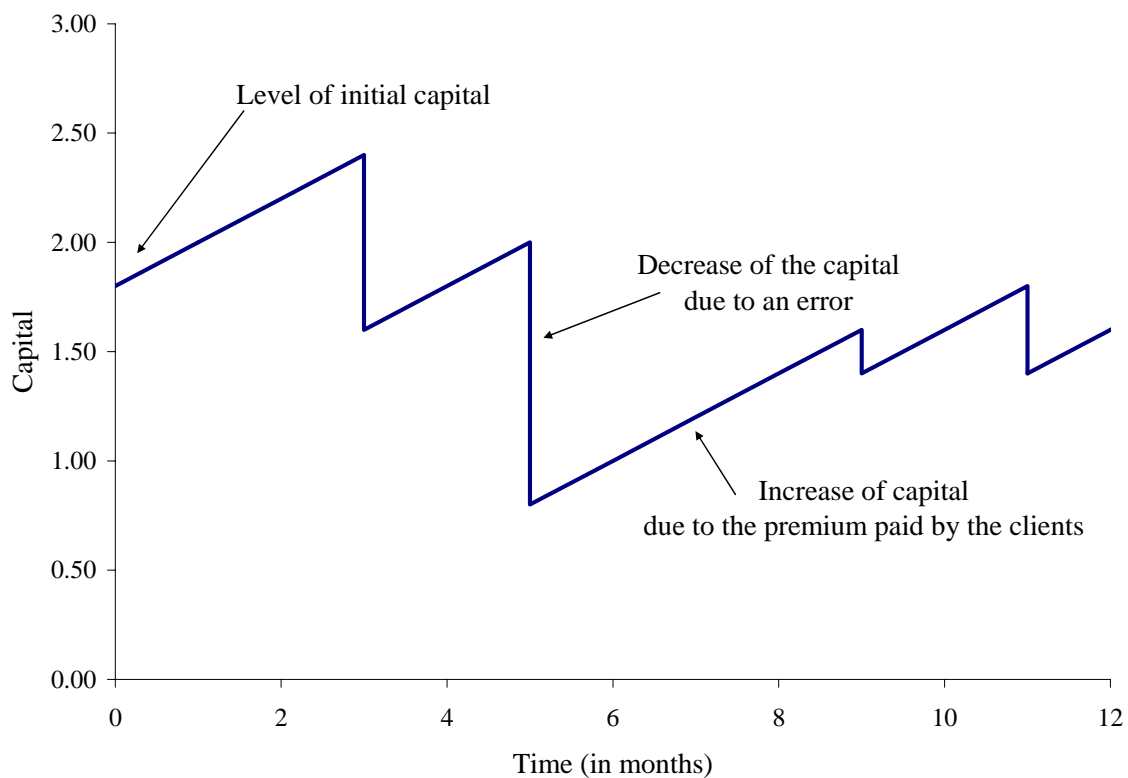


Longin F. and G. Martin (2003) “Quantifying the operational risk in investment fund valuation,” *Risk*, 16, 15-17.

Operational risk is a subject of topical interest addressed in the proposed financial regulation known as “Basel II”, which aims to define a new capital adequacy standard (the McDonough ratio). There must be as many definitions of operational risk as there are financial institutions. In one carefully considered formulation, the Basel Committee defines operational risk as “the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events”. Although the Basel Committee considered it only belatedly, the business of asset management (and *a fortiori* the fund valuation function) is covered by the proposed regulation.

The contribution of this article is to propose a method for quantifying that risk called the Loss Process Approach or LPA. Our approach has three elements: modelling of losses due to operational risk, the capital allocated to cover this risk, and the level of risk exposure chosen by the valuation company. Just as banks take credit risk into consideration when setting lending rates, a valuation company could include compensation for bearing operational risk when billing services to clients. The initial capital then increases with each premium received and decreases with each loss due to an operational incident, as shown in the chart below.

Evolution of the capital of the fund valuation company



The main result of this article is a mathematical relationship that gives the probability of never losing all the allocated capital as a function of the level of the premium and the initial capital. Thus, for a given level of risk, it is possible to determine all the pairs (capital, premium) that achieve this result. Beside allocating the necessary capital to the valuation activity for the operational risk, our method might be used for introducing a yardstick for billing the cost of that risk to the clients and a new quality indicator for the valuation process, and maybe hence as a guide in managing the business.