



31 May - 03 June 2016
at
ISEG- Lisbon School of Economics
and Management

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SUBMISSION FORM

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Title of Paper / Presentation / Session to appear in program:	BASICS OF CAPITAL ALLOCATION PRINCIPLES AS COMPOSITIONAL DATA		
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What will your final submission be? Presentation and Paper Presentation Only

If selected, what level of knowledge will delegates attending your session require? (please select only) one

No prior knowledge General industry knowledge assumed Technical/specific industry knowledge assumed

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ABSTRACT

BASICS OF CAPITAL ALLOCATION PRINCIPLES AS COMPOSITIONAL DATA (Jaume Belles-Sampera, Miguel Santolino and Montserrat Guillén)

Key words: Capital allocation / Compositional data / Ranking allocation principles / Averaging allocation principles

Purpose of your paper: To introduce first benefits achieved after understanding capital allocation principles as compositional data: reasoned ways of ranking and averaging different solutions to a particular capital allocation problem.

Abstract: Capital allocation problems of insurance and financial institutions arise when a management unit must distribute an amount among different business units. This amount may be the total costs faced by the company, its solvency capital requirement or the total variable economic compensation to be shared across business units, among other examples. This kind of problems are frequent and relevant from an Enterprise Risk Management (ERM) perspective, mainly if the risk that each business unit faces is, somehow, taken into account for the final allocation. A particular solution to a capital allocation problem is referred here to as a capital allocation principle. In this presentation we suggest that capital allocation principles can be interpreted as compositional data. Compositional data are quantitative descriptions of the components of a whole, where relative information is more relevant than absolute values. The reinterpretation of capital allocation principles as compositional data allows to use compositional methods which are coherent with the relative scale of compositions. Several proposals of solutions to the same capital allocation problem may be found in the literature, and scarce quantitative criteria to compare them are available. We take advantage of understanding capital allocation principles as compositional data to provide additional insights on this issue. For example, an immediate practical application of compositional methods is that capital allocation principles can be ranked based on the distances between them and the associated solutions can be appropriately averaged. In this presentation, the practical application of the compositional methods in the context of capital allocation problems is illustrated with an example extracted from the literature.

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