

# Commentary

---

*Masatoshi Okawa*

In my understanding, the issue of internal capital allocation is usually referred to as the question of how to allocate the overall capital of a financial firm among individual business areas of the firm, taking into account the amount of risk incurred by each business area. Internal capital allocation is used as a basis to decide the pricing of individual transactions or to evaluate the performance of each business area by the management of a firm. In this sense, the establishment of risk measurement methodologies is usually regarded as a prerequisite for successful internal capital allocation, as seen in the most famous example in this area, RAROC of Bankers Trust. Another concrete example of internal capital allocation is outlined in the paper, "Capital Allocation and Bank Management Based on the Qualification of Credit Risk," by Kenji Nishiguchi, Hiroshi Kawai, and Takanori Sazaki, although that paper deals only with credit risk.

It seems to me, however, that this session's first paper, "Building a Coherent Risk Measurement and Capital Optimisation Model for Financial Firms," by Tim Shephard-Walwyn and Robert Litterman, tackles the issue from a different angle, reflecting the fact that risk

measurement methodologies are still developing rapidly. The paper emphasizes how to quantify overall optimal capital for financial firms rather than how to allocate overall capital among individual business areas of the firm. I will not repeat the contents of the paper in detail. But I would like to point out some of the most challenging ideas.

First, the paper focuses on a risk pricing methodology called shadow pricing, instead of the more traditional risk-based capital allocation methodology. The objective is to maximize the firmwide Sharpe ratio, which represents the relationship between risk and the returns of a firm. The authors advocate this approach because risk-based capital allocation techniques would run the risk of incentivizing inappropriate behavior by overcharging for the risks that are yet to be subject to effective measurement. Although such techniques seek to allocate the total capital to the risks that have been identified and quantified, the traditional risk-based capital allocation methodology may lead to overcharging for risk because it lacks a comprehensive risk-factor model. In addition, this risk pricing methodology allegedly has some technical merits compared with the risk-based capital allocation methodology. For one, it recognizes covariance effects and the potential for implementation on a sequential basis without the significant risk of creating perverse incentives. I am not quite sure whether these technical aspects could be verified or not, and am interested to hear

---

*Masatoshi Okawa is chief manager of the Planning and Coordination Division of the Currency Issue Department at the Bank of Japan.*

comments on this point from the session's participants.

Second, the paper considers a model for an optimal regulatory capital regime called the base-plus approach, which could replace the existing fixed-ratio approach, internal models approach, or even the precommitment approach. Under the base-plus approach, regulators determine a fixed amount of capital as a base requirement for the firm. In addition, regulators permit the firm to adopt the precommitment approach or models-based approach to cover any increase in the firm's risk profile during the reference period by the "plus" amount of the regulatory capital. The base-plus approach could be regarded as a combination of the fixed-ratio approach and the internal models or precommitment approach; the authors argue that it has some of the merits of both approaches.

The new base-plus approach is conceptually very interesting. Practically speaking, however, calculating the plus amount using the internal models approach or the precommitment approach could present a problem, especially for regulators. The plus amount is added to the base amount set by regulators for the purpose of covering any increase in the firm's risk profile. This seems redundant, however, given the multiplication factor of "at least three" that has been introduced in the market risk capital requirement because of the same concerns about the theoretical limitations of internal models. Furthermore, the required amount of capital in the 1988 Basle Capital Accord is

already expected to function as a cushion for unexpected events of default. I very much look forward to hearing comments about this aspect of the base-plus approach from supervisors.

The second paper, "Capital from an Insurance Company Perspective," by Robert Lewis, explains the regulatory capital regime surrounding insurance firms in the United States, taking into account the function of capital at these firms and their differences compared with other types of financial firms. I would like to make just one remark here. It is a matter of course that the function of capital differs between insurance companies and other types of financial firms; these firms maintain different portfolio structures and conduct different activities. Problems could arise when the capital of these different types of financial firms is treated together. I would like to point out that this February the Basle Committee, IOSCO, and IAIS each released several papers on the supervision of financial conglomerates that are the result of the activities of the Joint Forum—an organization of banking, securities, and insurance supervisors. These organizations are seeking comments from the outside world. One of the papers released this February deals with possible methodologies for calculating the groupwide capital of financial conglomerates, including insurance companies. In this area, the paper by Robert Lewis offers us some important insights.

*The views expressed in this article are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. The Federal Reserve Bank of New York provides no warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, or fitness for any particular purpose of any information contained in documents produced and provided by the Federal Reserve Bank of New York in any form or manner whatsoever.*