

**Bank Management Using Basel II-Data:
Is the Collection, Storage and Evaluation of Data Calculated
with Internal Approaches Dispensable?**

Dennis Kundisch, Fabian M. Löhner, David Rudolph, Marcus Steudner
and Christian Weiss

Enterprise Risk Management Symposium
Society of Actuaries

Chicago, IL

March 28-30, 2007

Copyright 2007 by the Society of Actuaries.

All rights reserved by the Society of Actuaries. Permission is granted to make brief excerpts for a published review. Permission is also granted to make limited numbers of copies of items in this monograph for personal, internal, classroom or other instructional use, on condition that the foregoing copyright notice is used so as to give reasonable notice of the Society's copyright. This consent for free limited copying without prior consent of the Society does not extend to making copies for general distribution, for advertising or promotional purposes, for inclusion in new collective works or for resale.

Abstract

Banks all over the world are still concerned with the implementation of the new Basel Accord for Capital Adequacy that refines—among others—the minimum capital requirements. In the last few years, huge silo-like structures for data acquisition, data management and data processing have been created to comply with these new standards. In addition to the compulsory regulatory practices, banks run cost-intensive internal management systems for risk/return management as the existing regulatory systems underlie a number of limitations, which avoid an adequate measurement of the risk exposure. However, a precise measurement of the risk exposure is crucial for the optimal allocation of the scarce resource “economic capital.” In this paper, it is questioned whether in addition to the regulatory requirements, the differing data acquisition and processing for the internal management systems are really needed with respect to a bank-wide portfolio optimization.

It is shown that under specific conditions, an optimization approach utilizing the compulsory data output of the Basel Accord for Capital Adequacy can lead to an even better bank performance compared to using data generated with typical internal risk models based on VaR or CVaR—despite the theoretical deficiencies of the Basel framework with respect to the measurement of credit exposure. This effect may not only enable better data integration but also allow for cost savings on internal risk management systems.

A case study is presented that shows that a German commercial bank is already applying the proposed approach.