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Book Reviews

Risk Management. Challenge and Opportunity, edited by Michael Frenkel, Ulrich Hommel, and Markus Rudolf, Springer Verlag, 2000, 415 pages.

The editors and contributors of this festschrift for Gunter Dufey intended "... to highlight the most recent developments as well as the immediate challenges in the field of risk management" (see Preface, p. xiii). Given the extent of the field of risk management, this is a very demanding task. Moreover, since the risks involved are often not purely financial in nature, in many cases the solutions to manage both the financial and the non-financial risks are not provided by the financial markets.

The papers included in the festschrift were written by a mixed group of individuals, most of whom were doubtless selected because of their outstanding writing and scientific capacities. However, as is almost always the case with a festschrift, others were selected because they belong to the friends or relatives of the honored one. This often leads to books of a mixed quality and style. This also is the case with the book under review: Some of the papers are technically oriented, whereas others are entirely qualitative in nature. Furthermore, theoretically oriented papers go alongside with more practically oriented ones. Finally, some articles are superficial, while others are very thorough.

In order to be able to see the wood for the trees, the editors have subdivided the book into four parts.

Part 1. Expanding the Focus of Risk Management.
Part 2. Risk Management Issues.
Part 3. Regulatory Issues.
Part 4. Risk Management from an International Perspective.

Part 1 comprises five papers. In the first one, Harper, Keller and Pfeil take the somewhat provocative view that financial risk management – which in most cases is meant to reduce risks at a micro level – makes financial markets more riskier. With several statistical tests, the authors show that the volatility of the most important stock indices has increased since 1995. Moreover, the interconnection between the US stock market and the other stock markets in the world appears to be strengthened: higher volatility in the US leads to higher volatility in the other western countries. The authors attribute these developments partly to the intensive use of many of the risk management models that have been developed in the nineties. After reading this paper one would expect that the book includes several other papers that address the question how to control the increased volatility at a macro level. Instead, the majority of the other papers in the book discuss risk management at a micro level.

The other four papers in Part 1 deal with the possibilities to control special types of risks. The papers make clear that some of these risks can be controlled partly with (new) financial derivatives. For example, Hommel shows that catastrophe risks can be managed with so-called CAT-linked securities. The increased availability of standardised CAT-linked securities imply better risk management opportunities. However, the use of those standardised products also leads to basis risks. In a somewhat superficial article, which is written strongly from the perspective of their employer, Deutsche Börse AG, Geyer en Seifert address the question why energy derivatives (e.g., electricity derivatives) are important instruments for managing price risks in the energy market.

Finally, Walter addresses the management of reputation risk, for which there are no financial derivatives available. Walter suggests the development of good leadership alongside with intelligent pay-for-performance systems as controlling devices.

Part 2 digs deeper into several aspects of risk management. In a qualitative paper, Tschoegl expresses the view that operational risk deserves more attention. In his opinion, the finance profession has paid most of its attention to market and credit risk, while several recent financial debacles show the importance of operational risk. His analysis of three of these debacles makes clear that good governance systems could have prevented the disasters. Despite this call for more attention to operational risk, the management of market and credit risks remains very important. Therefore, several of the other papers address these latter risks. These papers pay extensive attention to the well known concept of Value at Risk and its appropriateness as a risk management tool. Moreover, the papers discuss the standard market risk model of the Bank of International Settlements, JPMorgan's RiskMetrics™, and their credit risk model CreditMetrics™. In addition, Rehm and Rudolf pay attention to the so-called KMV Credit Monitor which is a kind of a rating model rather than a Value at Risk due to credit or market risk model. Together, these papers provide a nice overview and comparison of the methods of risk measurement and control.

Risk is not always negative; it can also provide opportunities and may lead to a better financial performance, such as an increase in shareholder value. The book includes two papers on this subject. First, Huchzermeier describes the real option value of operational and managerial flexibility in global supply chain networks. Second, Brockhoff evaluates R&D projects as real options. As is well known, under certain assumptions options become more valuable when volatility increases. Huchzermeier, for instance, shows that an increase in demand volatility leads to an increase of the option value (but possibly may reduce shareholder value).

Moreover, shareholder value itself possibly increases if exchange rate volatility rises.

Part 2 concludes with a paper by Wahl and Broll about financial hedging. This paper explores the asset liability management possibilities of a bank using futures markets. It appears that the use of futures markets leads to basis risk, but careful use always increases the bank's welfare.

Part 3 deals with several regulatory issues concerning risk management. The first paper, written by Jain, is especially intriguing, because it states that "in the area of international capital flows, behavior of investors cannot be explained by economic theories alone" (p. 243). According to Jain, bounded rational behavior is not only interesting from a micro point of view, but it sometimes has huge macro consequences too. So, "new rules for international financial flows must take into account behavioral considerations ... and not assume that markets work perfectly" (p. 231). Kaen provides a good summary of the theory of corporate risk management. In addition, he shows that in a world that is far from perfect and where bounded rational behavior is all around us, application of careful corporate risk management can ensure that companies behave "social responsible", and enhance shareholder value maximization. Regulation must be aimed at providing a good climate for the development of risk management products and markets.

The papers by Pausenberger and Nassauer, and Weber and Liekweg deal with the regulatory situation in Germany. In a similar vein, Misawa addresses the situation in Japan. He describes the Japanese financial reorganisation in the banking sector that took place in the nineties. Part 3 ends with a paper about the regulatory aspects of trade in so-called risky foods (e.g., genetically modified food). The article nicely shows that risks are not always financial in nature. It describes the EC policies regarding the exportation of British beef, the use of hormones, and genetic modification. According to the author, Adams, the EC policies concerning these risky activities should aim at real food health concerns, and should not be partly inspired by economic reasoning.

More and more, financial markets become global and interconnected. Consequently, risks become more global too. Although international aspects are addressed in several papers throughout the book, it is not surprising that the last part of the book is explicitly dedicated to risk management from an international perspective. Frenkel and McCracken analyse the economic risks of the EMU. Although the exchange rate risk within the Union has disappeared, the fact that the so-called Stability Pact is not as binding as it looks, and the European labor market is still fairly rigid, leads to other macro-risks. In addition, there is hardly room for individual member countries to react on external shocks with discretionary monetary and fiscal policies. Finally, Frenkel and McCracken point out that in the future credit risk remains very important.

The two final papers of the book discuss the most prominent international risk: exchange rate risk. Dewenter, Higgins and Simin use an event study to show that US stock prices are dependent on dollar exchange rate movements. The event regards the devaluation of the Thai baht at the beginning of the Asian crisis in 1997. The focus of the article is relatively narrow – just one devaluation event has been used – so we have to be very careful in drawing firm conclusions from their research. Exchange rate risk remains of course important, and so there is a need for exchange rate risk management which is the subject of the final paper by Glaum. He investigated foreign exchange risk management practices within 74 German companies. The paper contains a lot of interesting facts about the hedging behavior of the respondents. For example, almost 90% of the respondents indicated that they, one way or another, hedge their foreign exchange risk exposure. Moreover, 73% of the respondents use exchange rate forecasts in connection with their hedging decisions. This is remarkable, because it leads to the conclusion that most firms believe that they can "beat the market". Finally, 91% of the respondents do not support the statement that the managers systematically examine the influence of exchange rate changes on the stock prices of their firms. This is a bit surprising because the paper by Dewenter et al. showed that exchange rate movements indeed influence stock prices.

To conclude, the book provides a nice overview of risk management. At the same time, it contains a few papers that will not be of interest to many readers. That fate is probably shared with most other festschrifts. In addition, several papers contain annoying (printing) errors. To address just a few: in the paper by Walter, the charts are missing, in the several figures in the article by Wahl and Broll σ is indicated by ♦, and the numbering of the figures in the text of the paper by Glaum does not correspond with the numbers of the figures themselves.

In my opinion, the book could best be indicated as background reading for several risk management courses. Moreover, students who intend to write their thesis on a special aspect of risk management will almost surely find some papers in this book that can serve as the starting point for their research.

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