

[Home](#) > [Schmalenbach Business Review](#) > [Article](#)

# Managing Credit Risk with Credit and Macro Derivatives

Published: 09 November 2017

Volume 56, pages 360–378, (2004) [Cite this article](#)[Schmalenbach Business Review](#)[Aims and scope](#) →[Udo Broll](#)<sup>1</sup>, [Gerhard Schweimayer](#)<sup>2,3</sup> & [Peter Welzel](#) <sup>2</sup> 115 Accesses  5 Citations [Explore all metrics](#) → A [Related Article](#) was published on 01 October 2004

## Abstract

We use the industrial organization approach to the microeconomics of banking, augmented by uncertainty and risk aversion, to examine credit derivatives and macro derivatives as instruments to hedge credit risk for a large commercial bank. In a partial-analytic framework we distinguish between the probability of default and the loss given default, model different forms of derivatives, and derive hedge rules and strong and weak separation properties between deposit and loan decisions on the one hand and hedging decisions on the other. We also suggest how bank-specific macro derivatives could be designed from common macro indexes which serve as underlyings of recently introduced financial products.



This is a preview of subscription content, [log in via an institution](#) to check access.

## Access this article

[Log in via an institution](#) →

[Buy article PDF 39,95 €](#)

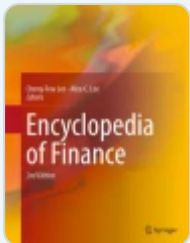
Price includes VAT (Poland)

Instant access to the full article PDF.

Rent this article via [DeepDyve](#)

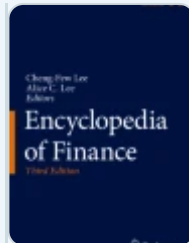
[Institutional subscriptions](#) →

## Similar content being viewed by others



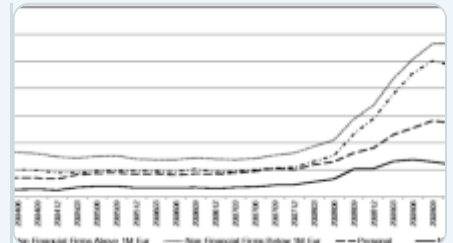
### Credit Derivatives

Chapter | © 2013



### Credit Derivatives

Chapter | © 2022



### Estimation of Regulatory Credit Risk Models

Article | 19 December 2014

## References

Altman, Edward/Saunders, Anthony (1997), Credit Risk Measurement: Development Over the Last 20 Years, in: Journal of Banking and Finance, Vol. 21, pp. 1721-1742.

[Article](#) [Google Scholar](#)

*Bank for International Settlements* (2001), Triennial Central Bank Survey. Foreign Exchange and Derivatives Market Activity in 2001.

*Benninga, Simon/Eldor, Rafael/Zilcha, Itzhak* (1984), The Optimal Hedge Ratio in Unbiased Futures Markets, in: *Journal of Futures Markets*, Vol. 4, pp. 155–161.

[Article](#) [Google Scholar](#)

*British Bankers' Association* (2002), Credit Derivatives Report 2002, [www.bba.org.uk/public/services/publications](http://www.bba.org.uk/public/services/publications).

*Chiappori, Pierre-André/Pérez-Castrillo, David/Verdier, Thierry* (1995), Spatial Competition in the Banking System: Localization, Cross Subsidies and the Regulation of Deposit Rates, in: *European Economic Review*, Vol. 39, pp. 889–918.

[Article](#) [Google Scholar](#)

*Deutsche Bundesbank* (2004), Instrumente zum Kreditrisikotransfer: Einsatz bei deutschen Banken und Aspekte der Finanzstabilität, Monatsbericht April 2004, pp. 27–45.

*Freixas, Xavier/Rochet, Jean-Charles* (1997), *Microeconomics of Banking*.

*Froot, Kenneth/Scharfstein, David/Stein, Jeremy* (1993), Risk Management: Coordinating Corporate Investment and Financing Policies, in: *Journal of Finance*, Vol. 48, pp. 1629–1658.

[Article](#) [Google Scholar](#)

*Froot, Kenneth/Stein, Jeremy* (1998), Risk Management, Capital Budgeting, and Capital Structure for Financial Institutions: An Integrated Approach, in: *Journal of Financial Economics*, Vol. 47, pp. 55–82.

[Article](#) [Google Scholar](#)

*Gujarati, Damodar* (1995), *Basic Econometrics*, 2. ed.

*Huang, James* (2002), *Relationships Between Risk Aversion, Prudence, and Cautiousness*, Working Paper, Lancaster University.

[Google Scholar](#)

*Instelfjord, Norvald* (2000), *Risk and Hedging: Do Credit Derivatives Increase Bank Risk?*, Discussion Paper, Fondation Banque de France.

[Google Scholar](#)

*Jeanneau, Serge* (2002), *Derivatives Markets*, BIS Quarterly Review.

*Kimball, Miles* (1990) *Precautionary Saving in the Small and in the Large*, in: *Econometrica*, Vol. 58, pp. 53-73.

[Article](#) [Google Scholar](#)

*Loubergé, Henri/Schlesinger, Harris* (2002), *Coping with Credit Risk*, Working Paper No. 36, Department of Economics, University of Manitoba.

[Google Scholar](#)

*Marshall, John/Bansal, Vipul/Herbst, Anthony/Tucker, Alan* (1992), *Hedging Business Cycle Risk with Macro Swaps and Options*, in: *Journal of Applied Corporate Finance*, Vol. 4, pp. 103-108.

[Article](#) [Google Scholar](#)

*Menezes, Carmen/Wang, Henry* (2002), *The Precautionary Premium and the Risk-downside Risk Trade-off*, Working Paper, Department of Economics, University of Missouri-Columbia.

*Neal, Robert* (1996), Credit Derivatives: New Financial Instruments for Controlling Credit Risk, in: Federal Reserve Bank of Kansas City Economic Review, pp. 15-27.

*Neven, Damien/Röller, Lars-Hendrik* (1999), An Aggregate Structural Model of Competition in the European Banking Industry, in: International Journal of Industrial Organization, Vol. 17, pp. 1059-1074.

[Article](#) [Google Scholar](#)

*Pausch, Thilo/Welzel, Peter* (2002), Credit Risk and the Role of Capital Adequacy Regulation, Volkswirtschaftliche Diskussionsreihe, Beitrag Nr. 224, Institut für Volkswirtschaftslehre, Universität Augsburg.

[Google Scholar](#)

*Prato, Olivier* (2002), Credit Derivatives: A New Source of Financial Instability?, in: Financial Stability Review, pp. 69-83.

*Schweimayer, Gerhard* (2003), Risikomanagement mit Makroderivaten auf Basis zeitdiskreter stochastischer Prozesse.

*The Wall Street Journal* (2002), New Futures Could Help Folks Insure Against Economic Risks, September 05, 2002.

*Topping, Michael* (2001), Banks to Launch Derivatives on Economics Statistics, in: Futures and Options Week, October 10, 2001, p. 12.

*Wilson, Thomas* (1998), Portfolio Credit Risk, in: Federal Reserve Bank of New York Economic Policy Review, Vol. 4, pp. 71-82.

*Wong, Keith* (1997), On the Determinants of Bank Interest Margins Under Credit and Interest Rate Risk, in: *Journal of Banking and Finance*, Vol. 21, pp. 251-271.

[Article](#) [Google Scholar](#)

## Author information

---

### Authors and Affiliations

**Fakultät Wirtschaftswissenschaften, Technical University of Dresden,  
Dresden, Germany**

Udo Broll

**Wirtschaftswissenschaftliche Fakultät, University of Augsburg, Augsburg,  
Germany**

Gerhard Schweimayer & Peter Welzel

**HypoVereinsbank AG, München, Germany**

Gerhard Schweimayer

### Corresponding author

Correspondence to [Peter Welzel](#).

## Rights and permissions

---

[Reprints and permissions](#)

## About this article

---

### Cite this article

Broll, U., Schweimayer, G. & Welzel, P. Managing Credit Risk with Credit and Macro Derivatives. *Schmalenbach Bus Rev* **56**, 360–378 (2004). <https://doi.org/10.1007/BF03396702>

Published

09 November 2017

Issue Date

October 2004

DOI

<https://doi.org/10.1007/BF03396702>

## JEL-Classification

[G21](#)

## Keywords

[Banking](#)

[Credit Derivative](#)

[Credit Risk](#)

[Macro Derivative](#)

[Systematic Risk](#)

## Search

Search by keyword or author



## Navigation

Find a journal

Publish with us

Track your research

