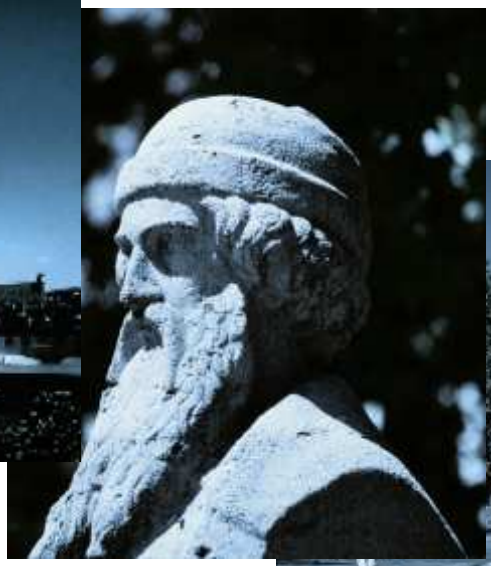
DGF German Finance Association
Deutsche Gesellschaft für Finanzwirtschaft

10th Annual Meeting

October 10-11, 2003
Mainz


JOHANNES GUTENBERG UNIVERSITÄT MAINZ

CoFaR
Center of FINANCE & RISK MANAGEMENT

The organization of the Annual Meetings of the DGF Deutsche Gesellschaft für Finanzwirtschaft / German Finance Association requires external financial sponsoring.
We would like to take this opportunity to express our appreciation to all who provided financial support:

Welcome

A very warm welcome to the 10th Annual Meeting of the *DGF Deutsche Gesellschaft für Finanzwirtschaft / German Finance Association*! *Johannes Gutenberg-University Mainz* and *CoFaR Center of Finance and Risk Management* are delighted to be hosting the association´s tenth anniversary meeting on our campus.

We expect close to 300 participants from 15 countries. By the paper submission deadline earlier this year, we had received almost 150 papers for consideration. Of these, 80 papers were selected representing an acceptance rate of slightly above 50 %. Three papers will get a prize to recognize and reward high quality research. Its announcement will be right before the keynote speech by Michael Brennan on Friday morning.

Of course, none of this would have been possible without the enormous effort and support of a large number of people. My thanks go firstly to the 40 members of the Program Committee, who diligently refereed up to nine papers. For almost 80 % of the papers, the difference in the numeric score assigned by two blind reviewers was just one point or less out of five, suggesting that the members of the Program Committee gave careful and exacting attention to their task. The program you see on the pages that follow would not be of the standard it is without their input. I would also like to thank our session chairs and discussants whose contribution is invaluable.

Furthermore, I am extremely indebted to the unfailing support of staff members of *CoFaR Center of Finance and Risk Management*. In particular, I appreciate the continual help of Manuel Gauer in creating an electronic platform for the double-blind refereeing procedure, Markus Starck and Martin Efferz for helping to put the program together, and the tireless efforts of Svitlana Holzapfel and my secretary Marita Lehn for taking care of the logistics and overall organization.

And finally, I wish to express my deep gratitude to the financial supporters of the DGF-conference 2003, listed on the facing page, who have really made possible this meeting including the evening event at *Kupferberg Sektkellerei*.

We hope you will enjoy our DGF-conference 2003 as much as we have enjoyed preparing for it over the last year.

Siegfried Trautmann
Program Chair

10th Annual Meeting
October 10-11, 2003
Mainz, Germany

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Registration and Information

Conference Office

The DGF 2003 Registration and Information desk is located on the ground floor of the main conference building ¨Haus Recht und Wirtschaft I¨ (ReWi I) and is open from 8:00-18:00 on Friday and 8:00-14:00 on Saturday.

Lunch

Lunch on Friday will be served between 12:30 and 14:00 in the Mensa. Every participant will find a voucher in the conference bag. Please consult page 80 for the location of the Mensa.

Organizing Committee

Martin Efferz, Manuel Gauer, Svitlana Holzapfel, Daniel Lange, Marita Lehn, Monika Müller, Markus Starck, Siegfried Trautmann

Please address all inquiries to the DGF 2003 Program Chair:

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If you have any inquiries during the conference please direct them to the DGF Registration and Information desk in the first instance.

Program Committee

Günter Bamberg, *Universität Augsburg*
Wolfgang Bessler, *Justus-Liebig-Universität Gießen*
Wolfgang Bühler, *Universität Mannheim*
Günter Franke, *Universität Konstanz*
Rüdiger Frey, *Universität Leipzig*
Günther Gebhardt, *Johann Wolfgang Goethe-Universität Frankfurt am Main*
Thomas Hartmann-Wendels, *Universität zu Köln*
Christoph Kaserer, *Technische Universität München*
Alexander Kempf, *Universität zu Köln*
Jan Pieter Krahnen, *Johann Wolfgang Goethe-Universität Frankfurt am Main*
Walter Krämer, *Universität Dortmund*
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Peter Möller, *RWTH-Aachen*
Sigrid Müller, *Humboldt-Universität zu Berlin*
Werner Neus, *Eberhard Karls Universität Tübingen*
Peter Nippel, *Christian-Albrechts-Universität zu Kiel*
Andreas Pfingsten, *Westfälische Wilhelms-Universität Münster*
Stefan Pichler, *Technische Universität Wien*
Klaus Röder, *Westfälische Wilhelms-Universität Münster*
Markus Rudolf, *WHU Otto-Beisheim-Hochschule*
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Dorothea Schäfer, *DIW Berlin*
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Christian Schlag, *Johann Wolfgang Goethe-Universität Frankfurt am Main*
Hartmut Schmidt, *Universität Hamburg*
Rainer Schöbel, *Eberhard Karls Universität Tübingen*
Bernhard Schwetzler, *HHL Leipzig Graduate School of Management*
Richard Stehle, *Humboldt-Universität zu Berlin*
Peter Steiner, *Karl-Franzens-Universität Graz*
Eva Terberger, *Ruprecht-Karls-Universität Heidelberg*
Erik Theissen, *Rheinische Friedrich-Wilhelm-Universität Bonn*
Marliese Uhrig-Homburg, *Universität Karlsruhe*
Mark Wahrenburg, *Johann Wolfgang Goethe-Universität Frankfurt am Main*
Martin Weber, *Universität Mannheim*
Jochen Wilhelm, *Universität Passau*
Josef Zechner, *Universität Wien*

Program Overview

Friday, October 10, 2003

Location: Johannes Gutenberg-Universität Mainz, Haus Recht und Wirtschaft

	Session A Hörsaal RW 2	Session B Hörsaal RW 3	Session C Hörsaal RW 4	Session D Hörsaal Hs II	Session E Hörsaal Hs IV
09:00 - 09:15			Welcome Hörsaal RW 1		
09:15 - 10:00	Keynote Address in Hörsaal RW1 *"Ausländer wissen weniger"* Prof. Michael J. Brennan, UCLA and LBS				
10:00 - 10:30			Coffee Break		
10:30 - 12:30	A1 Corporate Finance I	B1 Behavioral Finance I	C1 Credit Risk I	D1 Empirical Finance I	E1 Price Dynamics
12:30 - 14:00			Lunch		
14:00 - 15:30	A2 Corporate Finance II	B2 Behavioral Finance II	C2 Credit Risk II	D2 Empirical Finance II	E2 Interest Rates
15:30 - 16:00			Coffee Break		
16:00 - 17:30	A3 Corporate Finance III	B3 Risk Manage-ment I	C3 Credit Risk III	D3 Empirical Finance III	E3 Portfolio Selection
17:45 - 18:15		General Meeting of the German Finance Association Hörsaal RW 1			
18:30 - 23:00	Evening Event Conference Dinner at Kupferberg Sektkellerei (Note: special registration is required for the Conference Dinner)				

Program Overview

Saturday, October 11, 2003

Location: Johannes Gutenberg-Universität Mainz, Haus Recht und Wirtschaft

	Session A Hörsaal RW 2	Session B Hörsaal RW 3	Session C Hörsaal RW 4	Session D Hörsaal Hs II	Session E Hörsaal Hs IV
09:00 - 10:30	A4 Derivatives I	B4 Risk Manage-ment II	C4 Financial Inter-mediation I	D4 Market Micro-structure I	E4 Capital Markets I
10:30 - 11:00			Coffee Break		
11:00 - 12:30	A5 Derivatives II	B5 Risk Manage-ment III	C5 Financial Inter-mediation II	D5 Market Micro-structure II	E5 Capital Markets II

At the end of the conference all participants are invited to ¨Fedderweiße unn Zwibbelkuche¨.

Friday, October 10, 2003

10:30-12:30

Corporate Finance I — Hörsaal RW 2 — A1

Chair: Joseph Zechner – Universität Wien

10:30 Ingolf Dittmann – Humboldt-Universität zu Berlin
Niels Ulbricht – Humboldt-Universität zu Berlin
When Do Firms Abolish Their Dual-Class Structure? Abstract
Discussant: Gregor Dorfleitner – Universität Augsburg

11:00 *Thomas Dangl – Technische Universität Wien*
The Firm in a Changing Environment: About Investors' Rational Pessimism and the Consequences on Corporate Financial Decision Making Abstract
Discussant: Peter Raupach – Johann Wolfgang Goethe-Universität Frankfurt am Main

11:30 *Anton Miglo – Université du Québec à Montréal*
Debt-Equity Choice as a Signal of Profit Profile over Time Abstract
Discussant: Ulrich Hege – HEC Paris

12:00 Robert Hauswald – American University, Washington D.C.
Ulrich Hege – HEC Paris
Ownership and Control in Joint Ventures: Theory and Evidence Abstract
Discussant: Dorothea Schäfer – DIW Berlin

Behavioral Finance I — Hörsaal RW 3 — B1

Chair: Martin Weber – Universität Mannheim

10:30 Gur Huberman – Columbia University
Daniel Dorn – Columbia University
Paul Sengmueller – Universiteit van Amsterdam
Herding Among Individual Investors Abstract
Discussant: Martin Weber – Universität Mannheim

11:00 *Robert Tompkins – Hochschule für Bankwirtschaft in Frankfurt*
Stewart Hodges – Warwick Business School
William Ziemba – University of British Columbia
The Favorite / Long-shot Bias in S&P 500 and FTSE 100 Index Futures Options: The Return to Bets and the Cost of Insurance Abstract
Discussant: Nicole Branger – Johann Wolfgang Goethe-Universität Frankfurt am Main

11:30 Nittai Bergman – Harvard University
Dirk Jenter – Massachusetts Institute of Technology
A Note on Employee Sentiment and Stock Option Compensation Abstract
Discussant: Paul Sengmueller – Universiteit van Amsterdam

12:00 Marc Gürtler – TU Braunschweig
Nora Hartmann – TU Braunschweig
Behavioral Dividend Policy Abstract
Discussant: Horst Bienert – Mannheim

Credit Risk I — Hörsaal RW 4 — C1

Chair: Günter Bamberg – Universität Augsburg

10:30 *Antje Schirm – Universität Mannheim*
The European Corporate Bond Market and Debt Portfolio Losses in a Reduced-Form Factor Model Abstract
Discussant: Stephan Kossmeier – TU Wien

11:30 *Klaus Duellmann – Deutsche Bundesbank*
Harald Scheule – Universität Regensburg
Asset Correlation of German Corporate Obligors: Its Estimation, its Drivers and Implications for Regulatory Capital Abstract
Discussant: Peter Grundke – Universität zu Köln

11:30 *Stefan Weber – Humboldt-Universität zu Berlin*
Kay Giesecke – Cornell University
Credit Contagion and Aggregate Losses Abstract
Discussant: Oliver Reiß – Weierstraß-Institut für Angewandte Analysis und Stochastik, Berlin

12:00 *Peter Grundke – Universität zu Köln*
Integrating Interest Rate Risk in Credit Portfolio Models Abstract
Discussant: Rainer Jankowitsch – TU Wien

Empirical Finance I — Hörsaal Hs II — D1

Chair: Christoph Kaserer – TUM Business School

10:30 *Eric Hillebrand – Stanford University*
A Mean-Reversion Theory of Stock-Market Crashes Abstract
Discussant: Michael Schröder – Zentrum für Europäische Wirtschaftsforschung GmbH

11:00 *Niklas Wagner – TU München*
A Market Model with Time-Varying Moments and Results on Neuer Markt Stock Returns Abstract
Discussant: Wolfgang Härdle – Humboldt-Universität zu Berlin

11:30 *Leopold Sögner – TU Wien*
Sylvia Frühwirth-Schnatter – Johannes Kepler Universität Linz
Bayesian Estimation of the Heston Stochastic Volatility Model Abstract
Discussant: Enno Mammen – Universität Mannheim

12:00 *Matthias Fengler – Humboldt-Universität zu Berlin*
Wolfgang Härdle – Humboldt-Universität zu Berlin
Enno Mammen – Universität Mannheim
Implied Volatility String Dynamics Abstract
Discussant: Niklas Wagner – TU München

Friday, October 10, 2003

10:30-12:30

Price Dynamics **Hörsaal Hs IV** **E1**

Chair: Stefan Pichler – Technische Universität Wien

10:30 *Diana Ribeiro – Warwick Business School*
Stewart Hodges – Warwick Business School
Price Dynamics for Continuously Produced Storable Commodities: Competitive and Monopolistic Markets Abstract
Discussant: Christian Koziol – Universität Mannheim

11:00 *Sébastien Galy – Universität Konstanz*
Illiquidity and the Wealth Effect Abstract
Discussant: Jack E. Wahl – Universität Dortmund

11:30 *Bjarne Astrup Jensen – Copenhagen Business School*
On Valuation Before and After Tax in No Arbitrage Models: Tax Neutrality in the Continuous Time Model Abstract
Discussant: David Feldman – Ben-Gurion University of the Negev

12:00 *Andre Kronimus – WHU Otto-Beisheim-Hochschule*
Firm Valuation in a Continuous-Time SDF Framework Abstract
Discussant: Michael Hanke – Wirtschaftsuniversität Wien

Corporate Finance II — Hörsaal RW 2 — A2

Chair: Ulrich Hege – HEC Paris

14:00 *Ingolf Dittmann – Humboldt-Universität zu Berlin*
Measuring Private Benefits of Control from the Returns of Voting and Non-Voting Shares Abstract
Discussant: Dirk Jenter – Massachusetts Institute of Technology

14:30 Douglas Cumming – University of Alberta
Grant Fleming – Australian National University Canberra
Armin Schwienbacher – Universiteit van Amsterdam
Liquidity of Exit Markets and Venture Capital Finance Abstract
Discussant: Ulrich Hommel – European Business School

15:00 Rachel Croson – University of Pennsylvania
Armando Gomes – University of Pennsylvania
Kathleen McGinn – Harvard Business School
Markus Nöth – Universität Mannheim
Mergers and Acquisitions: An Experimental Analysis of Synergies, Externalities and Dynamics Abstract
Discussant: Joseph Zechner – Universität Wien

Behavioral Finance II — Hörsaal RW 3 — B2

Chair: Robert Tompkins – Hochschule für Bankwirtschaft in Frankfurt

14:00 *Markus Glaser – Universität Mannheim*
Martin Weber – Universität Mannheim
Overconfidence and Trading Volume Abstract
Discussant: Klaus Röder – Westfälische Wilhelms-Universität Münster

14:30 *Karl Ludwig Keiber – WHU Otto-Beisheim-Hochschule*
Overconfidence in the Continuous-Time Principal-Agent Problem Abstract
Discussant: Holger Kraft – ITWM, Kaiserslautern

15:00 Markus Glaser – Universität Mannheim
Thomas Langer – Universität Mannheim
Martin Weber – Universität Mannheim
On the Trend Recognition Ability of Professional Traders: Are they Better or just more Overconfident than Lay People Abstract
Discussant: Karl Ludwig Keiber – WHU Otto-Beisheim-Hochschule

Friday, October 10, 2003

14:00-15:30

Credit Risk II — Hörsaal RW 4 — C2

Chair: Jan Pieter Krahnen – Johann Wolfgang Goethe-Universität Frankfurt am Main

14:00 Udo Broll – Technische Universität Dresden
Gerhard Schweimayer – Universität Augsburg
Peter Welzel – Universität Augsburg
Managing Credit Risk with Credit and Macro Derivatives Abstract
Discussant: Lutz Hahnenstein – IKB Deutsche Industriebank

14:30 Jochen Bigus – Universität Hamburg
Stefan Prigge – Universität Hamburg
Subordinated Bonds as an Instrument of Banking Supervision: How to Improve Market Signal Quality Abstract
Discussant: Lars Norden – Universität Mannheim

15:00 *Michael Schröder – Zentrum für Europäische Wirtschaftsforschung GmbH*
Martin Schüler – Zentrum für Europäische Wirtschaftsforschung GmbH
Systemic Risk in European Banking Evidence from bivariate GARCH models Abstract
Discussant: Andre Güttler – Johann Wolfgang Goethe-Universität Frankfurt am Main

Empirical Finance II — Hörsaal Hs II — D2

Chair: Josef F. Wertschulte – Frankfurt am Main

14:00 *Wolfgang Drobetz – Universität Basel*
Andreas Schillhofer – Otto Beisheim Graduate School of Management
Heinz Zimmermann – Universität Basel
Corporate Governance and Expected Stock Return: Evidence from Germany Abstract
Discussant: Christoph Memmel – Universität zu Köln

14:30 *Udo Seifert – Humboldt-Universität zu Berlin*
Richard Stehle – Humboldt-Universität zu Berlin
Stock Performance Around Share Repurchase Announcements in Germany Abstract
Discussant: Christoph Kaserer – TU München

15:00 Raimond Maurer – Johann Wolfgang Goethe-Universität Frankfurt am Main
Frank Reiner – Johann Wolfgang Goethe-Universität Frankfurt am Main
Steffen Sebastian – Johann Wolfgang Goethe-Universität Frankfurt am Main
Risk and Return Characteristics of Commercial Real Estate Returns Abstract
Discussant: Tim Adam – Hong Kong University of Science & Technology

Interest Rates **Hörsaal Hs IV** **E2**

Chair: Bjarne Astrup Jensen – Copenhagen Business School

14:00 Kristian R. Miltersen – Norwegian School of Economics and Business Adm., Bergen
J. Aase Nielsen – University of Aarhus
Klaus Sandmann – Rheinische Friedrich-Wilhelms-Universität Bonn
The Futures Market Model and No-Arbitrage Conditions on the Volatility Abstract
Discussant: Markus Leippold – Universität Zürich

14:30 *Joao Pedro Nunes – Instituto Superior de Cincias do Trabalho e da Empresa*
Luis Oliveira – Instituto Superior de Cincias do Trabalho e da Empresa
Quasi-Analytical Multi-Factor Valuation of Treasury Bond Futures with an Embedded Quality Option Abstract
Discussant: Klaus Sandmann – Rheinische Friedrich-Wilhelms-Universität Bonn

15:00 *Rainer Jankowitsch – TU Wien*
Stefan Pichler – TU Wien
Currency Dependence of Corporate Credit Spreads Abstract
Discussant: Matthias Muck – WHU Otto-Beisheim-Hochschule

Friday, October 10, 2003

16:00-17:30

Corporate Finance III — Hörsaal RW 2 — A3

Chair: Dorothea Schäfer – DIW Berlin

16:00 *Andreas Löffler – Universität Hannover*
Das Standardmodell unter Unsicherheit ist ökonomisch unsinnig Abstract
Discussant: Bernhard Schwetzler – Leipzig Graduate School of Management

16:30 *Alexander M. Swoboda – Johann Wolfgang Goethe-Universität Frankfurt am Main*
Cash Flow-Investment Sensitivities of European Companies in the 1990s Abstract
Discussant: Eva Terberger – Ruprecht-Karls-Universität Heidelberg

17:00 *Bernhard Schwetzler – Leipzig Graduate School of Management*
Carsten Reimund – Leipzig Graduate School of Management
Conglomerate Discount and Cash Distortion: New Evidence from Germany Abstract
Discussant: Wolfgang Drobetz – Universität Basel

Risk Management I — Hörsaal RW 3 — B3

Chair: Joao Pedro Nunes – Instituto Superior de Cincias do Trobalho e da Empresa

16:00 *Markus Leippold – Universität Zürich*
Fabio Trojani – Universtà della Svizzera a Italiana
Paolo Vanini – Zürcher Kantonalbank
Equilibrium Impact of Value-at-Risk Abstract
Discussant: Stefan Pichler – TU Wien

16:30 *Perote Javier – Universidad de Salamanca*
Esther del Brio – Universidad de Salamanca
Measuring Value at Risk under the Conditional Edgeworth-Sargan Distribution Abstract
Discussant: Hans Rau-Bredow – Universität Würzburg

17:00 Tanja Dresel – Ludwig-Maximilians-Universität München
Robert Härtl – Ludwig-Maximilians-Universität München
Lutz Johanning – European Business School
Risk Capital Allocation using Value at Risk Limits: Incorporating unpredictable Correlations between Traders' Exposures Abstract
Discussant: Mario Straßberger – Friedrich Schiller-Universität Jena

Credit Risk III — Hörsaal RW 4 — C3

Chair: Mark Wahrenburg – Johann Wolfgang Goethe-Universität Frankfurt am Main

16:00 Holger Kraft – ITWM, Kaiserslautern
Gerald Kroisandt – ITWM, Kaiserslautern
Marlene Müller – ITWM, Kaiserslautern
Assessing the Discriminatory Power of Credit Scores under Censoring Abstract
Discussant: Bjarne Astrup Jensen – Copenhagen Business School

16:30 Hergen Frerichs – Johann Wolfgang Goethe-Universität Frankfurt am Main
Mark Wahrenburg – Johann Wolfgang Goethe-Universität Frankfurt am Main
Evaluating Internal Credit Rating Systems Depending on Bank Size Abstract
Discussant: Rüdiger Gebhard – Bundesanstalt für Finanzdienstleistungsaufsicht

17:00 Walter Krämer – Universität Dortmund
Andre Güttler – Johann Wolfgang Goethe-Universität Frankfurt am Main
Comparing the Accuracy of Default Predictions in the Rating Industry: The Case of Moody's vs. S&P Abstract
Discussant: Joachim Grammig – Eberhard Karls Universität Tübingen

Empirical Finance III — Hörsaal Hs II — D3

Chair: Alexander Kempf – Universität zu Köln

16:00 *Stefan Rünzi – Universität zu Köln*
Alexander Kempf – Universität zu Köln
Tournaments in Mutual Fund Families Abstract
Discussant: Hans-Peter Burghof – Universität Hohenheim

16:30 *Gunter Löffler – Universität Ulm*
Anatomy of a Performance Race Abstract
Discussant: Stefan Rünzi – Universität zu Köln

17:00 *Matthias Muck – WHU Otto-Beisheim-Hochschule*
Do Surprising Central Bank Moves Influence Interest Rate Derivatives Prices? Empirical Evidence from the European Caps and Swaptions Market Abstract
Discussant: Leopold Sögner – TU Wien

Friday, October 10, 2003

16:00-17:30

Portfolio Selection **Hörsaal Hs IV** **E3**

Chair: Marc Gürtler – TU Braunschweig

16:00 *Thomas Steinberger – European University Institute Florence*
Thomas Hintermaier – Institut für Höhere Studien, Wien
Occupational Choice and the Private Equity Premium Puzzle Abstract
Discussant: Frank Guse – WHU Otto-Beisheim-Hochschule

16:30 *Holger Kraft – ITWM, Kaiserslautern*
Optimal Portfolios with Stochastic Volatility Abstract
Discussant: Stefan Weber – Humboldt-Universität zu Berlin

17:00 *Andrea Seier – Universität Essen*
Are Minimum Return Gaurantees really as Expensive? Abstract
Discussant: Isabella Huber – Universität Karlsruhe

Derivatives I — Hörsaal RW 2 — A4

Chair: Klaus Sandmann – Rheinische Friedrich-Wilhelms-Universität Bonn

09:00 *Peter Raupach – Johann Wolfgang Goethe-Universität Frankfurt am Main*
The Valuation of Employee Stock Options Abstract
Discussant: Thomas Dangl – Technische Universität Wien

09:30 *Michael Hanke – Wirtschaftsuniversität Wien*
Klaus Pötzelberger – Technische Universität Wien
Dilution, Anti-Dilution, and Corporate Positions in Options on the Company's Own Stocks Abstract
Discussant: Peter Schwendner – Sal. Oppenheim

10:00 *Angelika Esser – Johann Wolfgang Goethe-Universität Frankfurt am Main*
Nicole Branger – Johann Wolfgang Goethe-Universität Frankfurt am Main
Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main
Attainability of European Path-Independent Claims in Incomplete Markets Abstract
Discussant: Holger Kraft – ITWM, Kaiserslautern

Risk Management II — Hörsaal RW 3 — B4

Chair: Andreas Löffler – Universität Hannover

09:00 *Oliver Reiß – Weierstraß-Institut für Angewandte Analysis und Stochastik, Berlin*
Fourier Inversion Algorithms for generalized CreditRisk$^+$ Models and an Extension to Incorporate Market Risk Abstract
Discussant: Carsten Binnenhei – Landesbank Baden-Württemberg

09:30 *Lutz Hahnenstein – IKB Deutsche Industriebank*
Klaus Röder – Westfälische Wilhelms-Universität Münster
The Minimum-Variance-Hedge and the Bankruptcy Risk of the Firm Abstract
Discussant: Nicole Branger – Johann Wolfgang Goethe-Universität Frankfurt am Main

10:00 *Tim Adam – Hong Kong University of Science & Technology*
Chitru S. Fernando – University of Oklahoma
Are There Speculative Components in Corporate Hedging and Do They Add Value? Abstract
Discussant: Alfred Lehar – Universität Wien

Saturday, October 11, 2003

09:00-10:30

Financial Intermediation I — Hörsaal RW 4 — C4

Chair: Andreas Pfingsten – Westfälische Wilhelms-Universität Münster

09:00 *Daniel Schmidt – Johann Wolfgang Goethe-Universität Frankfurt am Main*
Mark Wahrenburg – Johann Wolfgang Goethe-Universität Frankfurt am Main
Contractual Relations between European VCFunds and Investors: The Impact of Reputation and Bargaining Power on Contractual Design Abstract
Discussant: Werner Neus – Eberhard Karls Universität Tübingen

09:30 *Issam Hallak – Johann Wolfgang Goethe-Universität Frankfurt am Main*
Why do Borrowers pay a Premium to Larger Lenders? Empirical Evidence from Sovereign Syndicated Loans. Abstract
Discussant: Claudia M. Buch – Christian-Albrechts-Universität zu Kiel

10:00 *Astrid Matthey – Humboldt-Universität zu Berlin*
Tough Private Lenders Competing Against Soft State Banks Abstract
Discussant: Jan Pieter Krahnen – Johann Wolfgang Goethe-Universität Frankfurt am Main

Market Microstructure I — Hörsaal Hs II — D4

Chair: Hans-Peter Burghof – Universität Hohenheim

09:00 *Joachim Grammig – Eberhard Karls Universität Tübingen*
Erik Theissen – Rheinische Friedrich-Wilhelms-Universität Bonn
Estimating the Probability of Informed Trading - Does Trade Misclassification Matter? Abstract
Discussant: Catherine D'Hondt – Les Facultés Universitaires Catholiques de Mons

09:30 Thierry Foucault – HEC Paris
Sophie Moinas – HEC Paris
Erik Theissen – Rheinische Friedrich-Wilhelms-Universität Bonn
Does Anonymity Matter in Electronic Limit Order Markets? Abstract
Discussant: Lutz Johanning – European Business School

10:00 *Catherine D'Hondt – Les Facultés Universitaires Catholiques de Mons*
Rudy De Winne – Les Facultés Universitaires Catholiques de Mons
Alain François-Heude – Université de Perpignan
Hidden Orders on Euronext: Nothing is quite as it seems Abstract
Discussant: Lars Nordén – Stockholms universitet

Capital Markets I — Hörsaal Hs IV — E4

Chair: Richard Stehle – Humboldt-Universität zu Berlin

09:00 Mukarram Attari – University of Wisconsin-Madison
Antonio Mello – University of Wisconsin-Madison
Martin Ruckes – University of Wisconsin-Madison
Arbitraging Arbitrageurs Abstract
Discussant: Klaus Kreuzberg – Universität zu Köln

09:30 *David Feldman – Ben-Gurion University of the Negev*
Russell Winer – New York University
Separating Signaling Equilibria Under Random Relations Between Costs and Attributes Abstract
Discussant: Andreas Roider – Rheinische Friedrich-Wilhelms-Universität Bonn

10:00 Alexander Kempf – Universität zu Köln
Klaus Kreuzberg – Universität zu Köln
Market Timing and Security Market Line Analysis Abstract
Discussant: Gunter Löffler – Universität Ulm

Saturday, October 11, 2003

11:00-12:30

Derivatives II — Hörsaal RW 2 — A5

Chair: Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main

11:00 *Nicole Branger – Johann Wolfgang Goethe-Universität Frankfurt am Main*
Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main
Is Volatility Risk Priced? - Properties of Tests Based on Option Hedging Errors Abstract
Discussant: Robert Tompkins – Hochschule für Bankwirtschaft in Frankfurt

11:30 Matthias Fengler – Humboldt-Universität zu Berlin
Peter Schwendner – Sal. Oppenheim
Correlation Risk Premia for Multi-Asset Equity Options Abstract
Discussant: Joao Pedro Nunes – Instituto Superior de Cincias do Trabalho e da Empresa

12:00 *Sascha Wilkens – Westfälische Wilhelms-Universität Münster*
Carsten Erner – Westfälische Wilhelms-Universität Münster
Klaus Röder – Westfälische Wilhelms-Universität Münster
The Pricing of Structured Products - An Empirical Investigation of the German Market Abstract
Discussant: Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main

Risk Management III — Hörsaal RW 3 — B5

Chair: Peter Steiner – Karl-Franzens-Universität Graz

11:00 *Jack E. Wahl – Universität Dortmund*
Udo Broll – Technische Universität Dresden
Risk Aversion Elasticity and Risk Bearing Abstract
Discussant: Andreas Löffler – Universität Hannover

11:30 *Antje Mahayni – Rheinische Friedrich-Wilhelms-Universität Bonn*
Erik Schlögl – University of Technology Sydney
The Risk Management of Power Options embedded in Life-Insurance Products Abstract
Discussant: Angelika Esser – Johann Wolfgang Goethe-Universität Frankfurt am Main

12:00 *Giuseppe Alesii – Libera Università Internazionale degli Studi Sociali Guido Carli*
Controlling CFaR with Real Options Abstract
Discussant: Sébastien Galy – Universität Konstanz

Financial Intermediation II — Hörsaal RW 4 — C5

Chair: Eva Terberger – Ruprecht-Karls-Universität Heidelberg

11:00 Helmut Elsinger – Universität Wien
Alfred Lehar – Universität Wien
Martin Summer – Österreichische Nationalbank
Risk Assessment for Banking Systems Abstract
Discussant: Susanne Homölle – Westfälische Wilhelms-Universität Münster

11:30 *Claudia M. Buch – Christian-Albrechts-Universität zu Kiel*
John Driscoll – Federal Reserve Board
Charlotte Ostergaard – BI Handelshyskolen
Cross-Border Diversification in Bank Asset Portfolios Abstract
Discussant: Astrid Eisenberg – WHU Otto-Beisheim-Hochschule

12:00 *Susanne Homölle – Westfälische Wilhelms-Universität Münster*
Risk Reporting and Bank Runs Abstract
Discussant: Günter Bamberg – Universität Augsburg

Market Microstructure II — Hörsaal Hs II — D5

Chair: Gunter Löffler – Universität Ulm

11:00 Mathias Drehmann – Bank of England
Jörg Oechssler – Rheinische Friedrich-Wilhelms-Universität Bonn
Andreas Roider – Rheinische Friedrich-Wilhelms-Universität Bonn
Herding and Contrarian Behavior in Financial Markets - An Internet Experiment Abstract
Discussant: Markus Nöth – Universität Mannheim

11:30 *Lars Nordén – Stockholms universitet*
Fredrik Berchtold – Stockholms universitet
Information Asymmetry, Bid-Ask Spreads and Option Return Abstract
Discussant: Astrid Matthey – Humboldt-Universität zu Berlin

12:00 *Gregor Dorfleitner – Universität Augsburg*
How Short-termed is the Trading Behavior in German Futures Markets? An Empirical Comparison of Eurex Futures Abstract
Discussant: Zacharias Sautner – Universität Mannheim

Capital Markets II — Hörsaal Hs IV — E5

Chair: Erik Theissen – Rheinische Friedrich-Wilhelms-Universität Bonn

11:00 *Stefanie Franzke – Center for Financial Studies, Frankfurt*
Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main
Over-Allotment Options in IPOs on Germany's Neuer Markt - An Empirical Investigation Abstract
Discussant: Erik Theissen – Rheinische Friedrich-Wilhelms-Universität Bonn

11:30 *Hans-Peter Burghof – Universität Hohenheim*
Tilo Kraus – Universität München
Post-IPO Performance and the Exit of Venture Capitalists Abstract
Discussant: Stefanie Franzke – Center for Financial Studies, Frankfurt

12:00 Wolfgang Bessler – Justus-Liebig-Universität Gießen
Andreas Kurth – Justus-Liebig-Universität Gießen
The Performance of Venture-Backed IPOs in Germany: Exit Strategies, Lock-up Periods, and Bank Ownership Abstract
Discussant: Jochen Bigus – Universität Hamburg

Abstracts

Corporate Finance I A1

Ingolf Dittmann – Humboldt-Universität zu Berlin
Niels Ulbricht – Humboldt-Universität zu Berlin

When Do Firms Abolish Their Dual-Class Structure? Session

This paper searches for reasons why and when dual-class companies decide to convert their non-voting shares into voting shares. We argue that, as firms grow, the costs of the dual-class structure increase faster than the private benefits consumed by the largest shareholder. Therefore, at some critical firm size, the largest shareholder will agree to abolish the dual-class structure when a further growth opportunity arises. Our empirical analysis of 89 German dual-class firms between 1990 and 2001 supports this argument. A company is more likely to abolish its dual-class structure if expected future growth is high, if the firm is large, or if the largest block of voting shares is small. We also analyse the abnormal returns of 29 firms that actually did abolish their dual class structure during this period. We find a significant average abnormal return around the announcement date not only for non-voting shares, but also for voting shares. Firm value increases by 4% on average. A part of the variation in abnormal returns can be explained by the ownership structure of the firm.

Thomas Dangl – Technische Universität Wien

The Firm in a Changing Environment: About Investors' Rational Pessimism and the Consequences on Corporate Financial Decision Making Session

The recession at the beginning of the new millennium accompanied by a series of major corporate-accounting scandals (like Enron Arthur Andersen, WorldCom, Global Crossing, Ahold, ...) has pointed investors to the fact that (i) industry growth is apparently changing over time and (ii) the quality of signals about firms' profitability is not necessarily perfect. Despite the fact that many indicators suggest a beginning recovery of the economy in the U.S. and in Europe, investors seem to be reluctant in gaining confidence in a prosper future.
Inspired by Veronesi (1999), who gives rationale—using a general equilibrium asset pricing model—why investors underreact to good news in bad times, I develop a partial equilibrium contingent claims model of the firm in an uncertain environment. I.e., the growth rate of the cash flow generated by the firm's productive assets is modeled to change over time and the firm's equity and its debt are interpreted as claims contingent on this flow. To form their expectations about the firm's future, investors have to condition their belief about the growth perspectives on signals of certain quality. It is shown (i) how to derive the risk neutral dynamics of the Bayesian belief about growth in an partial equilibrium setting (ii) that positive risk premia imply the existence of 'rational pessimism' about growth and how this distortion in the beliefs depends on information quality, (iii) how to value equity and debt (analytically in some special cases and on a two dimensional tree in general), (iv) how investors pessimism influences equityholders decision to default, and (iv) that—as a consequence—the value of the firm's stakes and the debt capacity of the firm deteriorate if the information quality of signals about growth is low.

Abstracts

Anton Miglo – Université du Québec à Montréal

Debt-Equity Choice as a Signal of Profit Profile over Time Session

This paper extends Myers and Majluf's (1984) pecking-order theory to a dynamic environment. In contrast with existing static models, firms differ not in their overall ex-ante value but in their profit profile over time, which is their private information. Some firms are ¨growing¨, i.e. they have a steep profit profile, while others are ¨stagnant¨, with a flatter (or possibly declining) profit profile. I show that: 1) in any non-pooling equilibrium, growing firms issue debt while stagnant firms issue shares; and 2) if the economy is growing (there are more growing than stagnant firms), then pooling with debt is not an equilibrium. These results are consistent with certain financial market observations that cannot be explained by the standard pecking-order theory.

Robert Hauswald – American University, Washington D.C.
Ulrich Hege – HEC Paris

Ownership and Control in Joint Ventures: Theory and Evidence Session

Joint ventures, a particularly popular form of corporate cooperation, exhibit ownership patterns that are clustered around equal shareholdings for a wide variety of parent firms. In this paper, we investigate why 50-50 or ¨50 plus one share¨ equity allocations should be so prevalent. In our model, parent firms trade off control benefits and costs with incentives for resource contributions in the presence of asset complementarities.
We show that strict resource complementarity eliminates moral hazard in parent contributions so that ownership provides sufficient incentives for optimal investments. However, the potential for extraction of residual control benefits by the majority owner creates a discontinuity in contribution incentives at 50% equity stakes that explains the optimal clustering of ownership around 50-50 shareholdings. Using data from 1,248 US joint ventures announced between 1985 and 2000, we empirically analyze the determinants of their ownership allocations and conduct tests of model predictions that offer strong support for our theory.

Abstracts

Corporate Finance II A2

Ingolf Dittmann – Humboldt-Universität zu Berlin

Measuring Private Benefits of Control from the Returns of Voting and Non-Voting Shares Session

This paper proposes a new measure for estimating private benefits of control from data on dual-class companies. The proposed measure is the average return difference between non-voting shares and voting shares. We develop a theoretical framework that allows us to compare this new measure with the traditional measure, the relative price difference between voting and non-voting shares. It turns out that the price difference but not the return difference suffers from two sources of bias. The price difference will underestimate the value of control for firms which (1) pay higher dividends on non-voting shares than on voting shares or (2) are expected to discontinue their dual-class structure soon. We apply the two measures to data on German and US dual class companies and demonstrate that the price difference severely underestimates the value of control in the US relative to Germany. We conclude that private benefits of control do not differ significantly between these two countries.

Douglas Cumming – University of Alberta
Grant Fleming – Australian National University Canberra
Armin Schwienbacher – Universiteit van Amsterdam

Liquidity of Exit Markets and Venture Capital Finance Session

This paper provides evidence that venture capitalists adjust their investment decisions according to liquidity conditions on exit markets (mainly stock markets and corporate M&A markets). When exit markets become less liquid, venture capitalists tend to invest proportionately more in new early-stage projects in order to postpone exit requirements and thus invest in riskier projects; venture capitalists therefore trade-off liquidity risk with technological risk. On the other hand, when liquidity is high, they rush to exit by investing more in new later-stage projects. By doing so, venture capitalists also adjust their demand for liquidity based on supply. We also document a positive impact of liquidity on the overall number of new investments, as well as a negative efect of liquidity on syndicate size.

Abstracts

Rachel Croson – University of Pennsylvania
Armando Gomes – University of Pennsylvania
Kathleen McGinn – Harvard Business School
Markus Nöth – Universität Mannheim

Mergers and Acquisitions: An Experimental Analysis of Synergies, Externalities and Dynamics Session

Mergers and acquisitions improve market efficiency by capturing synergies between the firms. However, takeovers between firms also impose externalities (both positive and negative) on the remaining industry. This paper describes a new equilibrium concept designed to explain and predict mergers in this setting. We experimentally compare the new equilibrium concept to that of competing concepts in situations without and with externalities. We also examine the dynamics of takeovers and outcome implications of those dynamics. Our experimental results support the predictions of the new equilibrium concept and provide an organizing explanation for previously observed inconsistent results in event studies.

Abstracts

Corporate Finance III A3

Andreas Löffler – Universität Hannover

Das Standardmodell unter Unsicherheit ist ökonomisch unsinnig Session

Will man den Einfluss der Einkommensteuer auf den Wert eines Projektes oder eines Unternehmens bestimmen, so bietet sich das Standardmodell als eines der populärsten Modelle an. Bei diesem Modell werden insbesondere im Nenner die Kapitalkosten um den Faktor $1-\tau$ gekürzt, wobei τ den Steuersatz darstellt.
In dieser Arbeit wird das Standardmodell unter Unsicherheit im Rahmen eines einfachen Binomialmodells betrachtet. Es zeigt sich, dass dieses Modell bei Wahl geeigneter Parameter eine Arbitragegelegenheit kreiert wird und der gerade erwähnte Zusammenhang von Vor- und Nach-Steuer-Kapitalkosten nicht aufrecht erhalten werden kann.
Sodann wird eine Alternative der Einbeziehung der Einkommensteuer in den Kapitalwertkalkül diskutiert. Bei dieser Alternative zeigt sich, dass eine Erhöhung des Einkommensteuersatzes zu einer Verringerung des Unternehmenswertes führt.

Alexander M. Swoboda – Johann Wolfgang Goethe-Universität Frankfurt am Main

Cash Flow-Investment Sensitivities of European Companies in the 1990s Session

In contradiction to the classic theory of finance, liquidity plays a crucial role for investment behavior. Two possible explanations therefore are a wedge between internal and external cost of capital (costly external finance; CEF) and the tendency of management to overinvest in their own interest (empire building; EB). This paper contributes to the yet unanswered question, which of the two effects, is responsible by analyzing a pan-European sample of stock exchange listed companies. We examine the different behavior of various sub samples of firms, which we expect to behave differently according to the two theories. The CEF predicts, that companies with financial slack, with a low leverage, and with a high credit worthiness are less responsive to liquidity shocks. According to the EB, block holders among a firm's owners should reduce cash flow-investment sensitivities.
We analyze a sample compound of European large caps and growth companies from the 1990s and find that both financial slack, leverage and credit worthiness on the one hand and ownership concentration on the other hand are relevant for the importance of liquidity for investment. The results hold not only for investment in fixed assets but in most cases also for investment in other balance and off balance (i.e. human capital and ¨burned¨ cash) sheet items. In addition we show that information asymmetries are relevant for both large caps and growth companies, whereas primarily large caps seem to suffer from empire building.
In general European capital markets in the 1990 seem to suffer from both CEF and EB and as a consequence investment may be at a suboptimal level.

Abstracts

Bernhard Schwetzler – Leipzig Graduate School of Management
Carsten Reimund – Leipzig Graduate School of Management

Conglomerate Discount and Cash Distortion: New Evidence from Germany Session

Conglomerate discounts or premia are derived by comparing market values of conglomerates with the market values of a matched portfolio of stand alone firms (the imputed value of the conglomerates). Usually this comparison is based on firm values. We show that in this case conglomerate discounts or premia are subject to a potential bias caused by different cash holdings of conglomerates and stand alone firms. We prove evidence of such a cash distortion for German data: as German conglomerates hold on average substantially higher cash positions than the matched portfolio of stand alones, excess firm values are systematically upwards biased. Deducting cash from firm value and calculating discounts or premia based on enterprise values removes the bias. Based on excess enterprise values we are able to show a modest, but statistically significant conglomerate discount in Germany that is about 6% on an enterprise value basis.

Abstracts

Derivatives I — A4

Peter Raupach – Johann Wolfgang Goethe-Universität Frankfurt am Main

The Valuation of Employee Stock Options Session

The value of employee stock options (ESOs) depends on the exercise policy followed by option holders, which is significantly different from that for traded options. The accounting standard SFAS 123 reflects the difference by a simple modification of the Black-Scholes model. This paper validates the standard method on behalf of an advanced reference model that accounts for a large number of exercise drivers. A general theoretical framework is developed and, in a second step, concretized with a regression model from the empirical work of Heath, Huddart and Lang. By its ability to process complex information, associated with satisfactory consistency checks, I estimate the model to approximate real-world exercise patterns better than others. Assuming my reference model to be true, I obtain the input parameters for the SFAS method from the model. The resulting SFAS prices are then compared with the true ones. They show a negligible bias downward, thus adding further evidence on the surprising accuracy of the SFAS method. Based on separate data for different employee levels, I find no evidence that options given to top executives would be more costly than those given to subordinates. A further analysis shows that only half of the exercise drivers are essential for the price determination.

Michael Hanke – Wirtschaftsuniversität Wien
Klaus Pötzelberger – Technische Universität Wien

Dilution, Anti-Dilution, and Corporate Positions in Options on the Company's Own Stocks Session

In this paper, we analyze options that are bought or sold by the same company on whose stocks these options are written, leading to dilution and anti-dilution effects. We provide valuation equations for the European versions of such options, and discuss conditions for existence and uniqueness of their prices. Option prices to be paid or received for these options by the company are shown to be different from those that apply for standard options (which are bought and sold by outside investors). Since the options become part of the company's assets/liabilities, the stochastic process followed by the stock price changes. We demonstrate how the new stock price process can be derived, and discuss economic implications of our results. Numerical examples illustrate our findings.

Abstracts

Angelika Esser – Johann Wolfgang Goethe-Universität Frankfurt am Main
Nicole Branger – Johann Wolfgang Goethe-Universität Frankfurt am Main
Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main

Attainability of European Path-Independent Claims in Incomplete Markets Session

In this paper we consider the question which path-independent claims are attainable through self-financing trading strategies in an incomplete market. We show for continuous-time stochastic volatility models and for models exhibiting both stochastic volatility and jumps that from this special group of claims only affine linear payoffs can be replicated. We provide a simple proof for this proposition based on the requirement that the stock and the claim must be locally perfectly correlated and, in case of the stochastic volatility model, on the partial differential equation that any path-independent claim has to satisfy. An important application of our result is the quick derivation of bounds on European option prices which were previously deduced by other authors using very demanding techniques from probability theory. Furthermore, we show that there is no analogy for our result in models with discrete time and discrete state variables, i.e. in these models we can generate at least some non-linear path-independent claims by self-financing trading strategies.

Abstracts

Derivatives II A5

Nicole Branger – Johann Wolfgang Goethe-Universität Frankfurt am Main
Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main

Is Volatility Risk Priced? - Properties of Tests Based on Option Hedging Errors Session

This paper provides an in-depth analysis of the properties of popular tests for the existence and the sign of the market price of volatility risk. These tests are frequently based on the fact that for some option pricing models under continuous hedging the sign of the market price of volatility risk coincides with the sign of the mean hedging error. Empirically, however, these tests suffer from both discretization error and model risk. We show that these two problems may cause the test to be either no longer able to detect additional priced risk factors or to be unable to identify the sign of their market prices of risk correctly. Our analysis is performed for the model of Black, Scholes (BS) and the stochastic volatility (SV) model of Heston. In the model of BS, the expected error for a discrete hedge is positive, leading to the wrong conclusion that the stock is not the only priced risk factor. In the model of Heston, the expected hedging error for a hedge in discrete time is positive when the true market price of volatility risk is zero, leading to the wrong conclusion that the market price of volatility risk is positive.
If we further introduce 'model risk' by using the BS delta in a Heston world we find that the mean hedging error also depends on the slope of the implied volatility curve and on the equity risk premium. Under parameter scenarios which are similar to those reported in many empirical studies the test statistics tend to be biased upwards. This means that sometimes the test does not detect negative volatility risk premia, or it signals a positive risk premium when it is truly zero. The results of this test furthermore strongly depend on the location of current volatility relative to its long-term mean, and the degree of moneyness of the option. As a consequence the empirical tests may suffer from the problem that in a time-series framework the researcher cannot draw the hedging errors from the same distribution repeatedly. This implies that there is no guarantee that the empirically computed t-statistic has the assumed distribution.

Matthias Fengler – Humboldt-Universität zu Berlin
Peter Schwendner – Sal. Oppenheim

Correlation Risk Premia for Multi-Asset Equity Options Session

The lack of a liquid market for implied correlations requires traders to estimate correlation matrices for pricing multi-asset equity options from historical data. To quantify the precision of these correlation estimates, we devise a block bootstrap procedure. The resulting bootstrap distributions are mapped on price distributions of three standard types of multi-asset options. 'Minimal' bid-ask spreads that reflect the risk from estimating the unknown correlations are quoted as quantiles of the price distributions. We discuss the influence of different market regimes and different payoff structures on the price distributions and on the the size of the resulting bid-ask spreads.

Abstracts

Sascha Wilkens – Westfälische Wilhelms-Universität Münster
Carsten Erner – Westfälische Wilhelms-Universität Münster
Klaus Röder – Westfälische Wilhelms-Universität Münster

The Pricing of Structured Products - An Empirical Investigation of the German Market

Session

This paper examines the issuer pricing of structured products during the exchange trade in November 2001. The daily closing quotes of roughly 170 reverse convertibles and 740 discount certificates are compared to values based on duplication strategies using call options traded on the Eurex (European Exchange). We investigate the average price differences dependent on product type, issuer and underlying. A special focus lies on possible influences of the order flow, i. e. we analyze whether the price quotes depend on the expected volume of purchases and sales. The study reveals significant differences in the pricing of structured products which could mostly be interpreted as being in favor of the issuing institution.

Abstracts

Behavioral Finance I B1

Gur Huberman – Columbia University
Daniel Dorn – Columbia University
Paul Sengmueller – Universiteit van Amsterdam

Herding Among Individual Investors

Session

The conjecture that investor sentiment leads important groups of investors to act similarly and thereby affect prices is an important ingredient of models of noise trading and style investing. In contrast to Lakonishok et. al. (1992), who find only weak evidence of herding among institutional investors and conjecture that retail investors will herd even less, we document that a sample of over 30,000 retail clients at a German broker exhibits a strong tendency to herd at daily and quarterly horizons. Furthermore, we find a negative correlation between returns and retail buying which is entirely due to negative returns triggering the execution of limit buy orders (and positive returns triggering the execution of limit sell orders). Once we confine our attention to market orders, the correlation between retail buying and returns turns positive, especially for stocks in which retail investors own a comparatively high fraction of the company. Our results further strengthen the case for a positive impact of individual investor sentiment on returns, as suggested by Ofek and Richardson (2003) and Dorn (2002).

Robert Tompkins – Hochschule für Bankwirtschaft in Frankfurt
Stewart Hodges – Warwick Business School
William Ziemba – University of British Columbia

The Favorite / Long-shot Bias in S&P 500 and FTSE 100 Index Futures Options: The Return to Bets and the Cost of Insurance

Session

This paper examines whether the favorite/long-shot bias that has been found in gambling markets (particularly horse racing) applies to options markets. We investigate this for options on the S&P 500 futures, the FTSE 100 futures and the British Pound/US Dollar futures for the seventeen plus years from March 1985 to September 2002. Calls on the S&P 500 with both three months and one month to expiration display a relationship between probabilities and average returns that are very similar to the favorite bias in horse racing markets pointed out by Ali (1979), Snyder (1978) and Ziemba & Hausch (1986). There are slight profits from deep in-the-money and at-the-money calls on the S&P 500 futures and increasingly greater losses as the call options are out-of-the-money. For 3 month and 1 month calls on the FTSE 100 futures, the favorite bias is not found, but a significant long-shot bias has existed for the deepest out of the money options. For the put options on both markets, and for both 3 month and 1 month horizons, we find evidence consistent with the hypothesis that investors tend to overpay for all put options as an expected cost of insurance. The patterns of average returns is analogous to the favorite / long-shot bias in racing markets. For options on the British Pound/ US Dollar, there does not appear to be any systematic favorite / long-shot bias for either calls or puts.

Abstracts

Nittai Bergman – Harvard University
Dirk Jenter – Massachusetts Institute of Technology

A Note on Employee Sentiment and Stock Option Compensation Session

The use of broad stock-based compensation for employees has become widespread. The popularity of equity-based compensation for employees in the lower ranks of an organization is a puzzle for standard economic theory: any positive incentive effects should be diminished by free rider problems, and undiversified employees should discount company stock heavily. Empirically though employees do not appear to value company stock as prescribed by extant theory. Employees purchase company stock for their 401(k) and ESOP plans on a large scale, and especially so after company stock has performed well. Whenever employees purchase company shares at market prices, their private valuation has to be at least equal to the current price. Under these circumstances, using employees as capital providers to the firm is not a puzzle. We propose that firms take advantage of excessive extrapolation by employees (Benartzi, 2001) and pay their employees in options whenever employee sentiment towards the firm is irrationally positive. Our empirical analysis confirms that firms tend to use broad-based option compensation in situations in which employees are likely to be excessively optimistic about company stock. Option grants to non-executive employees are used by successful firms with high stock returns, high levels of cash, and high levels of investment. Firms with high leverage, high interest burden, and other signs of distress seem unable to pay employees with options. Finally, we provide evidence that managers grant more options to rank-and-file employees whenever management believes its stock to be overvalued.

Marc Gürtler – TU Braunschweig
Nora Hartmann – TU Braunschweig

Behavioral Dividend Policy Session

Although dividend policy represents an intensely researched field of modern finance, it is still a challenge to financial economists to develop a framework of optimal dividend policy that is consistent with empirical observations. Especially two questions have almost remained unacknowledged. Due to the tax disadvantage of dividends, the question immediately comes up why firms distribute dividends at all. In 1979 Black already defined this question as 'dividend puzzle' and nowadays Baker, Powell, and Vei (2002) show that it is still unsolved. Secondly, financial economists puzzle about the question why the nominal dividend per share fluctuates less than earnings per share for long time periods. Below, both questions are answered in a general setting with regard to abehavioral decision theory, i.e. 'disappointment theory'. Furthermore, Baker, Veit, and Powell (2001) empirically show past dividends and current earnings to be the most important factors influencing the current dividend decision. we place this result on a firm theoretical footing. At last, a framework concretion can reason gradual dividend adjustment to sudden unexpected changes in earnings as observed by Lintner (1956).

Abstracts

Behavioral Finance II B2

Markus Glaser – Universität Mannheim
Martin Weber – Universität Mannheim

Overconfidence and Trading Volume Session

Theoretical models predict that overconfident investors will trade more than rational investors. We directly test this hypothesis that overconfidence leads to high trading volume. We analyze trades over a 51 month period of a sample of 3000 individual investors who have online-broker accounts. These investors were asked to answer an internet questionnaire which was designed to measure various facets of overconfidence (miscalibration, the better-than-average effect, illusion of control, unrealistic optimism). We directly test our hypothesis by correlating individual overconfidence scores with several measures of trading volume of individual investors (number of trades, turnover). The measures of trading volume were calculated by the trades of 215 individual investors who answered the questionnaire. We find that investors who think that they are above average trade more. Measures of miscalibration are, contrary to theory, unrelated to measures of trading volume. These results hold even when we control for several other explanatory variables in a cross-sectional regression analysis. In connection with other recent findings, we conclude that the usual way of motivating and modelling overconfidence which is mainly based on the calibration literature has to be treated with caution. We argue that our findings present a psychological foundation for the "differences of opinion" explanation of high levels of trading volume. In addition, our way of empirically evaluating behavioral finance models - the correlation of economic and psychological variables and the combination of experimental and field data - seems to be a promising way to better understand which psychological phenomena drive economic behavior.

Karl Ludwig Keiber – WHU Otto-Beisheim-Hochschule

Overconfidence in the Continuous-Time Principal-Agent Problem Session

In this paper we analyze the impact of overconfidence on the continuoustime principalagent problem when both the risk neutral principal and the risk averse agent are assumed to be subject to this psychological bias. The firstbest and secondbest sharing rules as well as the agency costs are derived when the outcome process which is controlled privately by the agent is not observable directly by the two parties to the contract but a common signal on the outcome process is available. Both the firstbest contract and the firstbest control are reported to be independent of the parties' overconfidence. In contrast the secondbest contract and the secondbest control, which is always less than the firstbest control, as well as the agency costs depend on the degree of overconfidence. The comparative static results document that the secondbest control decreases but the agency costs increase with the parties' overconfidence. The various components of the secondbest sharing rule exhibit mixed comparative static results with respect to the degree of overconfidence.

Abstracts

Markus Glaser – Universität Mannheim
Thomas Langer – Universität Mannheim
Martin Weber – Universität Mannheim

On the Trend Recognition Ability of Professional Traders: Are they Better or just more Overconfident than Lay People Session

Betting on trends is perhaps the most prevalent form of overconfidence in financial markets. It is particularly important for professional traders. Using financial professionals and novices as experimental subjects, we analyze two ways of trend prediction: probability estimates and confidence intervals. We observe underconfidence in the first and overconfidence in the second task. This is especially interesting as our study elicits these different measures of overconfidence within the same domain and based on the same information. In addition, we can conclude that professionals do not always perform better or worse than lay people, but are just more overconfident in general. Above that, we find that the degree of overconfidence in both tasks is positively correlated for all experimental subjects whereas performance measures are not. Our study has important implications for financial modeling. It demonstrates that a theorist has to be careful when deriving assumptions about the behavior of actors in financial markets from psychological findings.

Abstracts

Risk Management I B3

Markus Leippold – Universität Zürich
Fabio Trojani – Universtà della Svizzera a Italiana
Paolo Vanini – Zürcher Kantonalbank

Equilibrium Impact of Value-at-Risk Session

We offer a general framework to analyze Value-at-Risk (VaR) based regulation on the investors behavior and on financial markets. Investors maximize expected utility subject to VaR constraint imposed by the regulator. Asset price dynamics are allowed to depend on a stochastic opportunity set and therefore can exhibit stochastic volatility. In partial equilibrium, our results sharply contrast with what is known so far from models with lognormal price dynamics. Depending on model choice and parameters, VaR regulation either decreases or increases the exposure to the risky asset. Extending our framework to a pure exchange economy with heterogenous investors, we identify a tendency for lower interest rates and higher risk premia. In addition, regulation leads to changes in the cross-sectional wealth distributions, which are independent of the banks risk aversion. The findings on equilibrium volatility remain mixed. Indeed, it is not possible to make a general statement whether VaR as an endogenous risk measure supports the aim of regulation.

Perote Javier – Universidad de Salamanca
Esther del Brio – Universidad de Salamanca

Measuring Value at Risk under the Conditional Edgeworth-Sargan Distribution Session

This paper introduces the Edgeworth-Sargan distribution on measuring Value-at-Risk of portfolios. The flexible parametric representation of this density makes it capable of improving the density fits (especially at the tails) and permits a straightforward method of percentile computation. Moreover, the time varying variance-covariance structure of the portfolio can be also estimated consistently to the Edgeworth-Sargan hypothesis since this density admits a straightforward multivariate representation. Estimates of portfolios VaR evidence the underestimation of VaR measures under the normality assumption and also the more accurate VaR measures under the Edgeworth-Sargan distribution.

Abstracts

Tanja Dresel – Ludwig-Maximilians-Universität München
Robert Härtl – Ludwig-Maximilians-Universität München
Lutz Johanning – European Business School

Risk Capital Allocation using Value at Risk Limits: Incorporating unpredictable Correlations between Traders' Exposures Session

Value at risk of multiple assets is calculated by taking into account correlations between these assets. In order to guarantee full usage of value at risk limits (risk capital) and thereby to maximize banks profit, top down capital allocation also has to account for correlations. With business units deciding more or less independently about size and direction (long or short) of their investments correlations between business units expo-sures cannot be determined ex ante. Within a simulation model we develop a value at risk limit system that guarantees no overshooting of total limit and sub-limits as well as full usage of total risk capital con-sidering all diversification effects. We first model the capital budgeting procedure mainly used by banks today and show that the average usage of total risk capital hereby is only 31.38 %. The effect of great parts of risk capital not being utilized can be avoided by implementing a treasurer. Al-though the treasurer has no forecasting skills the profit of the whole trading division increases essentially.

Abstracts

Risk Management II B4

Oliver Reiß – Weierstraß-Institut für Angewandte Analysis und Stochastik, Berlin

Fourier Inversion Algorithms for generalized CreditRisk$^+$ Models and an Extension to Incorporate Market Risk

Session

A popular model to describe credit risk in practice is CreditRisk+ and in this paper a Fourier inversion to obtain the distribution of the credit loss is proposed. Therefore the CreditRisk+ model is described in terms of characteristic functions. One advantage of this approach is that one can abstain from the basic loss unit, which was introduced in the CreditRisk+ model for computational reasons only. To determine the credit loss distribution, two methods based one the Fourier transformation are established, which work even if the corresponding characteristic function is not integrable.
The CreditRisk+ model will be extended such, that general dependent sector variables can be taken into consideration, for example dependent lognormal sector variables. The computation of the loss distribution for such generalized models is based on a combination of Monte Carlo simulation and Fourier inversion. The transfer to a continuous time model will be performed and the sector variables become processes, more precisely geometric Brownian motions.
To have a time continuous credit risk model is an important step to combine this model with market risk. Additionally a portfolio model will be presented where the changes of the spreads are driven by the sector variables. Using a linear expansion of the market risk, the distribution of this portfolio can be determined. In the special case that there is no credit risk, this model yields the well known Delta normal approach for market risk, hence a link between credit risk and market risk has been established.

Lutz Hahnenstein – IKB Deutsche Industriebank
Klaus Röder – Westfälische Wilhelms-Universität Münster

The Minimum-Variance-Hedge and the Bankruptcy Risk of the Firm

Session

In this paper, we analyze the influence of hedging with forward contracts on the firms prob-ability of bankruptcy. The minimization of this probability can serve as a substitute for the maximization of shareholders wealth. It is shown that the popular minimum-variance-hedge is generally neither necessary nor sufficient for the minimization of the firms probability of bankruptcy. Moreover, our model suggests a correction of the widespread view that a reduc-tion in the variance of the future value of the firm is inevitably accompanied by a reduction in its default risk. We derive an analytical solution for the variance-minimizing hedge ratio of a firm exposed to both input and output price uncertainty that takes into account the issue of correlation. Based on this solution we provide a graphical analysis to prove our claim that there is a fundamental difference between hedging policies focused on bankruptcy risk and those following conventional wisdom even if positive correlation constitutes a ¨natural¨ hedge.

Abstracts

Tim Adam – Hong Kong University of Science & Technology
Chitru S. Fernando – University of Oklahoma

Are There Speculative Components in Corporate Hedging and Do They Add Value?

Session

Why does corporate risk management add value? A common hypothesis is that derivatives transactions have zero NPV, and add value only because they help firms mitigate market imperfections. We reexamine this question by analyzing the derivatives transactions of 92 North American gold mining firms from 1989-1999. Our data allows us to infer the quarterly cash flows that each firm derives specifically from its derivatives transactions. Surprisingly, we find that these cash flows are positive, and both economically and statistically significant. Our sample firms realized an average gain of $2.73 million per quarter from their derivatives transactions, while their average quarterly net income was only $0.87 million. These gains appear to be the result of systematic positive risk premia in the gold market. Furthermore, we find evidence that is consistent with firms incorporating their market views into their hedging programs. However, we find that speculating on the time variation of the risk premium has not created any value for shareholders on average. To our knowledge, ours is the first study to show that corporate derivatives usage can be intrinsically valuable, and our results highlight a potentially important motive for the corporate use of derivatives that the literature has hitherto ignored.

Abstracts

Risk Management III B5

Jack E. Wahl – Universität Dortmund
Udo Broll – Technische Universität Dresden

Risk Aversion Elasticity and Risk Bearing Session

This paper applies the mean-standard deviation paradigm as to examine a widely used model of the hedging literature. As the standard hedging model satisfies a location and scale condition the mean-standard deviation technique provides more intuition for the revision of the firm's optimum risk bearing when price volatility changes. By introducing the elasticity of risk aversion to price risk we describe the interaction of price volatility and optimum hedge.

Antje Mahayni – Rheinische Friedrich-Wilhelms-Universität Bonn
Erik Schlögl – University of Technology Sydney

The Risk Management of Power Options embedded in Life-Insurance Products Session

We analyse contracts which pay out a guaranteed minimum rate of return and a fraction of a positive excess rate, which is specified on the basis of a benchmark portfolio. These contracts are closely related to life-insurance products and can be considered as alternatives to a direct inverstment in the underlying benchmark portfolio. In particular, the effects of modelling a roll-over savings plan along the lines of Miltersen and Persson (1998) are analysed where the participation in the excess return is given in an exponential form. We discuss some important features of this contract specification, which heretofore have not been considered in the literature. For one, the option embedded into the savings plan is in fact a power option with a payoff which is neither convex nor concave in the value of the underlying benchmark. The power of the embedded option is equal to the participation rate α in the excess return above the guarantee, and the strike depends on α as well as the minimum guaranteed rate g. Thus the specification of the ¨fair¨ contract parameters is closely related to well known features of power options. The long maturity of life-insurance products makes it necessary to lift the Black/Scholes assumptions and consider an uncertain volatility scenario. This gives rise to an interesting pricing and hedging problem. In particular, we show how to determine the contract parameters conservatively and implement robust risk management strategies. This highlights the necessity of a careful choice of guarantees which are granted to the insurance customer.

Abstracts

Giuseppe Alesii – Libera Università Internazionale degli Studi Sociali Guido Carli

Controlling CFaR with Real Options Session

Cash flow at risk (CFaR) can be controlled using real options. In this normative paper, we derive numerically in a univariate discrete time model, extension of (Kulatilaka, 1988), the expanded NPV of an industrial investment and, simultaneously, state variable thresholds to optimally exercise real options for the whole life of the project. In this framework, we model total variability in expanded NPV using a Markov chain Montecarlo method. A number of original results are derived for an all equity financed firm. Cash Flow distribution and CFaR is derived for each epoch in the life of the project. A VaR for the expanded NPV at time 0 is derived. These new methods have been applied to two case studies in shipping finance, namely a very large crude carrier and a Panamax.

Abstracts

Credit Risk I C1

Antje Schirm – Universität Mannheim

The European Corporate Bond Market and Debt Portfolio Losses in a Reduced-Form Factor Model Session

An accurate model for losses incurred by defaults of credit-risky securities is valuable information for the risk analysis of defaultable debt portfolios and for the pricing of derivative instruments that make portfolio default risk tradable, such as basket products or credit risk securitizations. Information about the market's assessment of the occurrence of individual and multiple default events is to a certain amount processed in the prices of defaultable securities.
The paper establishes the link between a market where default risk is traded and losses in defaultable debt portfolios. A factor model of the affine-yield class is specified, taking into account the effects of an economy-wide risk factor both on observed default risk premia and losses in a portfolio context. Model estimation is performed on the basis of the implied zero bond spreads of European corporate bonds.
Probability distributions of losses in defaultable debt portfolios are examined. The specified default mechanisms are in line with the estimated factor model, incorporating additional diversification among sectors. The risk analysis provides the basis for the pricing of derivatives referring to losses in debt portfolios, for which valuation results are obtained.
We find that the model specification assuming an economy-wide risk factor yields a good explanation of the joint evolution of default risk premia observed in the bond market. Translated to the portfolio context, the impact of the common factor on overall loss variation is high, rendering sector-related diversification benefits rather small.

Klaus Duellmann – Deutsche Bundesbank
Harald Scheule – Universität Regensburg

Asset Correlation of German Corporate Obligors: Its Estimation, its Drivers and Implications for Regulatory Capital Session

This paper addresses the gap between the theoretically well-understood impact of systematic risk on the loss-distribution of a credit-risky loan portfolio and the lack of empirical estimates of the default correlation. To this purpose we start with a one-factor model in which the correlation with the systematic risk factor equals the asset correlation between two firms. In the theoretical part of the paper the small sample performance of three different correlation estimators is analysed by Monte Carlo simulation.
In the empirical part asset correlations are estimated from time series of ten years with default histories of 53280 German companies. The sample is divided into categories that are homogenous with respect to default probability (PD) and firm size. In this way we can explore to what extent correlations depend on these two factors. Several economic explanations why asset correlation depends on size and PD are discussed.
The empirical analysis is motivated as well by current proposals for the internal rating based approaches of the new Basel Accord. They suggest that the asset correlation parameter in the formula for the risk weights depends on the PD and on the firm size of the obligor. Our empirical results are compared with this proposal.

Abstracts

Stefan Weber – Humboldt-Universität zu Berlin
Kay Giesecke – Cornell University

Credit Contagion and Aggregate Losses Session

Credit contagion refers to the propagation of economic distress from one firm or sovereign government to another. In this paper we model credit contagion phenomena and study the fluctuation of aggregate credit losses on large portfolios of financial positions. The joint dynamics of firms' credit ratings is modeled by a voter process, which is well-known in the theory of interacting particle systems. We clarify the structure of the equilibrium joint rating distribution using ergodic decomposition. We analyze the quantiles of the portfolio loss distribution and in particular their relation to the degree of model risk. After a proper re-scaling taking care of the heavy tails induced by the contagion dynamics, we provide a normal approximation of both the equilibrium rating distribution and the portfolio loss distribution.

Peter Grundke – Universität zu Köln

Integrating Interest Rate Risk in Credit Portfolio Models Session

A typical shortcoming of most current credit portfolio models is the lack of a stochastic mod-eling of risk factors, such as interest rates or credit spreads, during the revaluation process at the risk horizon. Within the simple credit risk model of the IRB-approach with incorporated interest rate risk the effect which results form neglecting the stochastic nature of market risk factors is shown for an infinitely large, homogeneous portfolio of defaultable coupon bonds. As expected, the consequence of ignoring interest rate risk can be that not enough capital is allocated as a protection against an unexpected deterioration of the portfolios value. The lower the correlations of the firms asset returns, the lower the unconditional default prob-abilities and the longer the bonds times to maturity, the higher is the difference between the VaR with and without considering interest rate risk during the revaluation process at the risk horizon.

Abstracts

Credit Risk II C2

Udo Broll – Technische Universität Dresden
Gerhard Schweimayer – Universität Augsburg
Peter Welzel – Universität Augsburg

Managing Credit Risk with Credit and Macro Derivatives Session

The industrial organization approach to the microeconomics of banking augmented by uncertainty and risk aversion is used 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 indices which serve as underlyings of recently introduced financial products.

Jochen Bigus – Universität Hamburg
Stefan Prigge – Universität Hamburg

Subordinated Bonds as an Instrument of Banking Supervision: How to Improve Market Signal Quality Session

There is a growing number of proposals to use subordinated bonds in banking supervision. We address two points which have been neglected so far and which may be important in order to evaluate the costs and benefits of subordinated bonds correctly. First, we suggest perpetual subordinated bonds, since this may make the bond market more liquid and reduce the required liquidity premium, thus enhancing the information function of yields and prices. Second, we show that subordinated bondholders may benefit from risk-increasing activities when the bank faces financial distress, whereas depositors - and bank supervisors - are interested in decreasing risk. Thus, there should be an upper bound on subordinated debt.

Abstracts

Michael Schröder – Zentrum für Europäische Wirtschaftsforschung GmbH
Martin Schüler – Zentrum für Europäische Wirtschaftsforschung GmbH

Systemic Risk in European Banking Evidence from bivariate GARCH models Session

This paper attempts to assess the Europe-wide systemic risk in banking. We employ a bivariate GARCH model to estimate conditional correlations between European bank stock indices. These correlations are used as an indication for the interdependencies amongst the banking business and hence for the systemic risk potential. We employ several tests to assess the development of systemic risk. The results show that many of the conditional correlations exhibit an upward move in the last years. This is an indication that the economic factors determining the European banking business have become more similar and that the systemic risk potential has increased.

Abstracts

Credit Risk III C3

Holger Kraft – ITWM, Kaiserslautern
Gerald Kroisandt – ITWM, Kaiserslautern
Marlene Müller – ITWM, Kaiserslautern

Assessing the Discriminatory Power of Credit Scores under Censoring Session

We discuss how to assess the performance of credit scores under the assumption that for credit data only a part of the defaults and nondefaults is observed. The paper introduces a criterion that is based on the difference of the score distributions under default and nondefault. We show how to estimate bounds for this criterion, the Gini coeffcient and the accuracy ratio.

Hergen Frerichs – Johann Wolfgang Goethe-Universität Frankfurt am Main
Mark Wahrenburg – Johann Wolfgang Goethe-Universität Frankfurt am Main

Evaluating Internal Credit Rating Systems Depending on Bank Size Session

Under the proposal of a new Basel capital accord (Basel II proposal), banks will be allowed to use their own estimates of average one-year rating class default probabilities for regulatory capital calculation. Bank regulators will have to decide whether a banks internal credit rating system meets certain minimum requirements specified in the proposal. While these measures will not be sufficient to decide on their admittance to the internal ratings based approach, they may serve as valuable and objective quality indicators. Based on data from Deutsche Bundesbanks corporate balance sheet statistics, we examine the influence of bank size and statistical default model on the distribution of inaccuracy and imprecision statistics and on resulting capital requirements. Our dataset comprises balance sheet and default data from 1990 to 2000 of more than 44,000 medium-sized and large companies. Results of our study are that in-sample Brier scores are good quality indicators for small and large banks. Linear discriminant analysis performs considerably worse than probit regression with respect to default probability estimation. Capital requirements based on default probability estimates of statistical default models are higher than those based on internal default experience. Estimation differences decrease with bank size. In the current version of the paper, we examine the distribution of quality indicators for banks that we define to satisfy the requirements of the internal ratings based approach. To complete the paper, we will define banks that do not satisfy these requirements and simulate the power of a test that an unsatisfactory internal credit rating system will actually be identified as such.

Abstracts

Walter Krämer – Universität Dortmund
Andre Güttler – Johann Wolfgang Goethe-Universität Frankfurt am Main

Comparing the Accuracy of Default Predictions in the Rating Industry: The Case of Moody's vs. S&P

Session

We consider 1927 borrowers from 54 countries who had a credit rating by both Moodys and S&P as of the end of 1998, and their subsequent default history up to the end of 2002. Viewing bond ratings as predicted probabilities of default, we show that it is unlikely that both agencies are well calibrated, and that the ranking of the agencies depends crucially on the way in which probability predictions are compared, with a slight advantage, at least for our data set, for the Moodys rating agency.

Abstracts

Financial Intermediation I C4

Daniel Schmidt – Johann Wolfgang Goethe-Universität Frankfurt am Main
Mark Wahrenburg – Johann Wolfgang Goethe-Universität Frankfurt am Main

Contractual Relations between European VCFunds and Investors: The Impact of Reputation and Bargaining Power on Contractual Design Session

The paper explores factors that influence the design of financing contracts between venture capital investors and European venture capital funds. 122 Private Placement Memoranda and 46 Partnership Agreements are investigated in respect to the use of covenant restrictions and compensation schemes. The analysis focuses on the impact of two key factors: the reputation of VC-funds and changes in the overall demand for venture capital services. We find that established funds are more severely restricted by contractual covenants. This contradicts the conventional wisdom which assumes that established market participants care more about their reputation, have less incentive to behave opportunistically and therefore need less covenant restrictions. We also find that managers of established funds are more often obliged to invest own capital alongside with investors money. We interpret this as evidence that established funds have actually less reason to care about their reputation as compared to young funds. One reason for this surprising result could be that managers of established VC funds are older and closer to retirement and therefore put less weight on the effects of their actions on future business opportunities. We also explore the effects of venture capital supply on contract design. Gompers and Lerner (1996) show that VC-funds in the US are able to reduce the number of restrictive covenants in years with high supply of venture capital and interpret this as a result of increased bargaining power by VC-funds. We do not find similar evidence for Europe. Instead, we find that VC-funds receive less base compensation and higher performance related compensation in years with strong capital inflows into the VC industry. This may be interpreted as a signal of overconfidence: Strong investor demand seems to coincide with overoptimistic expectations by fund managers which make them willing to accept higher powered incentive schemes.

Issam Hallak – Johann Wolfgang Goethe-Universität Frankfurt am Main

Why do Borrowers pay a Premium to Larger Lenders? Empirical Evidence from Sovereign Syndicated Loans. Session

All other terms being equal (e.g. seniority), syndicated loans provide larger lending compensations (in basis points) to institutions funding larger amounts. This paper explores empirically the motivation for such a price design on a sample of sovereign syndicated loans during the period 1990-1997. I find strong evidence that a larger premium is associated with higher renegotiation probability. It has hardly any impact on the number of lenders though. This is consistent with the hypothesis that main banks provide services in situations of liquidity shortage. Moreover, larger payment discrepancies are also associated with larger syndicated loan amounts. Hence, the large lender obtains compensation for the increase in the probability of success of the loan syndication. This provides new evidence that larger borrowers bear additional borrowing costs.

Abstracts

Astrid Matthey – Humboldt-Universität zu Berlin

Tough Private Lenders Competing Against Soft State Banks Session

In many economies, small and medium-sized firms have no direct access to the financial markets but depend on bank loans. In the market for bank loans, competition is often distorted by state banks enjoying lower funding cost than private banks due to a state guarantee on their liabilities. In this paper, we argue that if the state bank's guarantee is tied to an obligation to renegotiate loans of firms in financial distress, i.e., the state bank is a 'soft' lender, a private bank can induce firms to separate by self-selection through committing itself to a policy of tough liquidation. This reduces information asymmetries in the market and allows the private bank to lend to high-quality firms at favorable rates. As the result, the borrower pool of the bank improves and it obtains profits in equilibrium.

Abstracts

Financial Intermediation II C5

Helmut Elsinger – Universität Wien
Alfred Lehar – Universität Wien
Martin Summer – Österreichische Nationalbank

Risk Assessment for Banking Systems Session

In this paper we suggest a new approach to risk assessment for banks. Rather than looking at them individually we try to undertake an analysis at the level of the banking sytem. Such a perspective is necessary because the complicated network of mutual credit obligations can make the actual risk exposureof banks invisible at the level of individual institutions. We apply our framwork to a cross section of individual bank data as they are usually collected at the central bank. Using standard risk management techniques in combination with a network model of interbank exposures we analyze the consequences of macroeconomic shocks for bank insolvncy risk. In particular we consider iterest rate shocks, exchange rate and stock market movements as well as schocks related to the business cycle. The feedback between individual banks and potential domino effects from bank defaults are taken explicitly into account. The model determines endogenously probabilities of bank insolvencies, recovery rates and a decomposition of insolvency cases into defaults that directly result from movements in risk factors and defaults that arise indirectly as a consequence of contagion.

Claudia M. Buch – Christian-Albrechts-Universität zu Kiel
John Driscoll – Federal Reserve Board
Charlotte Ostergaard – BI Handelshyskolen

Cross-Border Diversification in Bank Asset Portfolios Session

This paper studies banks' international asset portfolios assessing whether banks can reduce their exposure to country risks through international diversification. We employ data set on the cross-border claims of banks located in four countries (France, Germany, U.K., and the U.S.) and use the mean variance-portfolio model to determine the optimal degree of diversification under different assumptions of currency hedging. Relative to this benchmark, we find that banks over-invest domestically. We use regression analysis to explain the difference between actual and optimal portfolio shares through variables that capture credit risk and information costs. Banks appear to have preferences, and hence over-interest relatively to the benchmark, for certain economies but we do not find evidence that information costs associate with cultural and legal differences explain the these preferences. The presence of credit risk, however, affects the degree of over-investment so that the banks' over-invest more when credit conditions improve.

Abstracts

Susanne Homölle – Westfälische Wilhelms-Universität Münster

Risk Reporting and Bank Runs Session

Increasing risk disclosure of banks, e.g. via risk reporting in their annual accounts, is high on the agenda. In this paper, we analyse whether risk reporting of banks only shows favourable effects as supposed by the legislator and regulatory authorities or whether there exist unde-sired negative effects as well. Referring to the literature on deposit contracts and bank runs, we concentrate on the impact on depositors' reactions: How are the depositors' decisions to withdraw their money or to keep it in the bank influenced by the bank's risk reporting? Addi-tionally, we look at the reaction of the bank to possible changes in the depositors' behaviour.

As a benchmark scenario we analyse a scenario without risk reporting. In a game of incom-plete information between bank and depositors, different kinds of equilibria are possible de-pending on the parameters of the model. On the one hand, a pooling equilibrium may be ob-served, in which an ¨average¨ return on deposits is agreed upon regardless of the bank's asset risk. On the other hand, equilibria with adverse selection may be observed: Only in case of high asset risk, the bank stays in the market. In the scenario with risk reporting the bank re-ports on the values of selected downside risk measures. At the same time it has to decide whether to adjust the return on deposits, e.g. to prevent a bank run. Compared with the benchmark scenario, risk reporting may but does not have to decrease banks' risk or the prob-ability of bank runs. Under certain conditions it may even lead to higher risk of already rather risky banks. This negative effect is the more likely, the smaller the range of possible levels of asset risk is, the more the depositors a priori believe that asset risk is low, and the less risk averse the depositors are.

Abstracts

Empirical Finance I D1

Eric Hillebrand – Stanford University

A Mean-Reversion Theory of Stock-Market Crashes Session

Errors in the perception of mean-reversion expectations can cause stock-market crashes. This view was proposed by Fischer Black after the stock market crash of 1987. I discuss this concept and specify a stock-price model with mean-reversion in returns. Using daily data of the Dow Jones Industrial Average and the S&P500 index I show that mean-reversion in returns is a transient but recurring phenomenon. In the case of the crash of 1987 I show that during the period 1982–1986 mean-reversion was higher than during the nine months prior to the crash. This indicates that mean-reversion expectations were underestimated in 1987. This error was disclosed when in the week prior to the crash it became known that a surprisingly high volume of equities was under portfolio insurance and thus hedged against a faster reversion. Simulations of the model with parameter estimates obtained from the two periods show that a crash of 20 percent or more had a probability of about seven percent. Up to five years after the crash, mean-reversion was higher than before. This supports Black's hypothesis. Contrary to that, the crash of 1929 cannot be explained by a mean-reversion illusion.

Niklas Wagner – TU München

A Market Model with Time-Varying Moments and Results on Neuer Markt Stock Returns Session

The well-known market model of returns is considered as an empirical specification for modeling returns in the aftermarket for German Neuer Markt initial public offerings (IPO's). In order to account for time-varying return variance after the IPO, model innovations are autoregressive conditional heteroskedastic, volume enters the conditional variance equation and expected return is a function of conditional variance. It is shown that the proposed model has non-critical stationarity and extremal return features. Empirical results follow from a sample of Neuer Markt stocks traded during the first two years after initial listing. There is evidence of different distributional characteristics, including abnormal performance within a period of roughly six months of aftermarket trading. Conditioning abnormal returns on estimated aftermarket return variance yields lower levels of statistical significance than the standard approach.

Abstracts

Leopold Sögner – TU Wien
Sylvia Frühwirth-Schnatter – Johannes Kepler Universität Linz

Bayesian Estimation of the Heston Stochastic Volatility Model Session

The goal of this article is an exact Bayesian analysis of the Heston (1993) stochastic volatility model. We carefully study the affect different parameterizations of the latent volatility process and the parameters of the volatility process have on the convergence and the mixing behavior of the sampler. We apply the sampler to simulated data and to some DM/US$ exchange rate data.

Matthias Fengler – Humboldt-Universität zu Berlin
Wolfgang Härdle – Humboldt-Universität zu Berlin
Enno Mammen – Universität Mannheim

Implied Volatility String Dynamics Session

A primary goal in modeling implied volatility surfaces (IVS) aims at reducing the complexity of the stochastic process. For this purpose it is common practice to fit the IVS each day and apply a principal component analysis using a functional norm. These approaches, however, neglect the degenerated string structure of the implied volatility data and are likely to result in a strong bias. Using transactions based German DAX implied volatility data from 1998 to May 2001, we approximate the IVS in a finite dimensional function space by only fitting in the local neighborhood of the design points. Our approach is a combination of methods from functional principal component analysis and backfitting techniques for additive models. The basis functions recovered have intuitive financial interpretations. We study the time series properties of the parameter weights and complete the modeling approach by proposing a vector autoregressive model for the IVS.

Abstracts

Empirical Finance II D2

Wolfgang Drobetz – Universität Basel
Andreas Schillhofer – Otto Beisheim Graduate School of Management
Heinz Zimmermann – Universität Basel

Corporate Governance and Expected Stock Return: Evidence from Germany Session

Recent empirical work shows that a better legal environment leads to lower expected rates of return in an international cross-section of countries. This paper investigates whether differences in firm-specific corporate governance also help to explain expected returns in a cross-section of firms within a single jurisdiction. Constructing a corporate governance rating (CGR) for German firms, we document a positive relationship between the CGR and firm value. In addition, there is strong evidence that expected returns are negatively correlated with the CGR, if dividend yields and price-earnings ratios are used as proxies for the cost of capital. Most results are robust for endogeneity, with causation running from corporate governance practices to firm fundamentals. Finally, an investment strategy that bought high-CGR firms and shorted low-CGR firms would have earned abnormal returns of around 12 percent on an annual basis during the sample period. We rationalize the empirical evidence with lower agency costs and/or the removal of certain governance malfunctions for the high-CGR firms.

Udo Seifert – Humboldt-Universität zu Berlin
Richard Stehle – Humboldt-Universität zu Berlin

Stock Performance Around Share Repurchase Announcements in Germany Session

In Germany share repurchases must be authorized by the annual stockholder assembly. In addition, the actual start of the repurchase program must be announced with an ad-hoc message, that is, a standardized announcement that has a high visibility. In the US, share repurchase announcements do not have a standardized form and a large fraction of firms that announce repurchases do not implement their intention. Before May 1998 share repurchases were highly restricted in Germany. Our sample covers all repurchase announcements between May 1998 and January 2003. For the 138 uncontaminated announcements in this period we find an average abnormal performance of 4.823%, which is considerably higher than the price reaction reported by studies of the US market.

Abstracts

Raimond Maurer – Johann Wolfgang Goethe-Universität Frankfurt am Main
Frank Reiner – Johann Wolfgang Goethe-Universität Frankfurt am Main
Steffen Sebastian – Johann Wolfgang Goethe-Universität Frankfurt am Main

Risk and Return Characteristics of Commercial Real Estate Returns Session

Past research suggests that international real estate markets show return characteristics and interrelationships with other asset classes which probably qualify them as an interesting component in national and international asset allocation decisions. However, the special characteristics of real estate assets are quite distinct form that of financial assets like stocks and bonds. This is also the case for real estate return distributions. Therefore, proper integration of real estate markets in asset allocation decisions requires profound knowledge of the distributional characteristics of real estate returns. Also caused by the special characteristics of real estate, representing real estate markets through reliable time-series is a complex task. Consequently reliable real estate indices with a sufficient long history for major international real estate markets are poorly available. Most of the research on real estate returns was done for the U.K. and U.S., where eligible indices exist. However, other important real estate markets like Germany are only poorly covered by research. In this analysis the methodology of Maurer, Sebastian and Stephan (2000) for indirectly deriving an appraisal based index for the German commercial real estate market is applied. This approach is based solely on publicly available data from German open-ended real estate investment trusts. It could also provide a solution in deriving reliable real estate time-series for other countries. We extend previous analyses for the U.K. and U.S. and provide additional fundamental insights into the return characteristics of the German commercial real estate market. Despite univariate considerations, the main focus is on interrelationships between different international real estate markets and between these markets and international stock and bond markets.

Abstracts

Empirical Finance III D3

Stefan Rünzi – Universität zu Köln
Alexander Kempf – Universität zu Köln

Tournaments in Mutual Fund Families Session

The mutual fund industry resembles a tournament situation. Funds change their risk in dependence of their midyear performance in order to reach a top rank at the end of the year. Previous studies look at the competition in fund segments. They test the hypothesis that interim losers increase risk more than winners in order to benefit from the well-documented convex performance-inflow relationship (see, e.g., Brown, Harlow, and Starks (1996) (BHS)). We contribute to the literature in two ways: (1) Our paper is the first to analyze the question whether fund managers only engage in a segment tournament or if there is also a competition between mutual funds within their fund families. Thereby we complement to the growing literature on mutual fund families. (2) We analyze for the first time, whether the behavior of funds within their segment and within their family depends on the competitive situation they are facing. Based on the theoretical model of Taylor (2003) we argue that the intuitive behavior described in BHS should only occur in large segments/families. However, we argue that funds in small segments/families take the actions of their competitors into account and therefore show a risk-taking behavior distinct from the one observed in large segments/families. We test our hypotheses using a comprehensive dataset of the complete US equity mutual fund universe for 1993-2001. Our main results are: (1) The midyear rank of a fund within its segment and within its family determines a funds risk-taking. A family tournament does exist. (2) How a fund reacts on its midyear rank depends crucially on the number of competitors in its family and segment, respectively. (3) There is a clear break in the behavior of funds in the segment tournament before and after 1996. Overall, our results indicate that mutual funds risk taking is determined by more complex incentives than described in previous studies.

Gunter Löffler – Universität Ulm

Anatomy of a Performance Race Session

In 1998, an amendment of the German securities law introduced a new mutual fund category meant to be especially suited for private retirement savings. Within a few weeks, most fund companies that are active on the German market launched one or more funds belonging to the new category. The fund companies subsequently embarked on a performance race, which was largely fuelled by allocations of underpriced IPOs. The abnormal returns of the top five funds averaged 20% per annum. The results vividly illustrate the strength of incentives for achieving superior performance. More importantly, they cast doubts on the markets capacity to evaluate the nature of performance differentials between funds.

Abstracts

Matthias Muck – WHU Otto-Beisheim-Hochschule

Do Surprising Central Bank Moves Influence Interest Rate Derivatives Prices? Empirical Evidence from the European Caps and Swaptions Market Session

This paper examines the effects of possible surprising central bank actions on derivatives prices. It implements a LIBOR market model with jumps to capture possible large changes due to these actions. It compares the pricing performance of this model to one without jumps. The key finding of this paper is that the jump component which mimics surprising ECB behavior significantly improves the fit to a series of observed swaption quotes. The model with jumps also prices interest rates caps more consistently to the swaptions market.

Abstracts

Market Microstructure I D4

Joachim Grammig – Eberhard Karls Universität Tübingen
Erik Theissen – Rheinische Friedrich-Wilhelms-Universität Bonn

Estimating the Probability of Informed Trading - Does Trade Misclassification Matter? Session

Easley / Kiefer / O'Hara / Paperman (1996) (EKOP) have proposed an empirical methodology that allows to estimate the probability of informed trading and that has subsequently been used to address a wide range of issues in market microstructure. The data needed for estimation is the number of buyer- and seller-initiated trades. This information often has to be inferred by applying trade classification algorithms like the one put forth by Lee / Ready (1991). These algorithms are known to be inaccurate. In this paper we perform extensive simulations to show that inaccurate trade classification leads to biased estimation of the probability of informed trading when applying the EKOP methodology. The estimate is biased downward and the magnitude of the bias is related to the trading intensity of the stock in question. Scrutinizing prior empirical studies using the EKOP methodology, we conclude that the bias may severely affect the results of empirical microstructure studies.

Thierry Foucault – HEC Paris
Sophie Moinas – HEC Paris
Erik Theissen – Rheinische Friedrich-Wilhelms-Universität Bonn

Does Anonymity Matter in Electronic Limit Order Markets? Session

We analyze the effect of concealing limit order traders identities on market liquidity. First we develop a model in which limit order traders have asymmetric information on the true cost of limit order trading (which is determined by the exposure to informed trading). Uninformed bidders draw inferences on this cost from the state of the book. A thin book can be due to untapped profit opportunities or a high cost of limit order trading. The last possibility reduces uninformed bidders inclination to add depth when the book is thin. Informed bidders exploit this effect by bidding less aggressively than when bidders have symmetric information. However they bid more aggressively when their identities are concealed than when they are disclosed. For this reason, concealing limit order traders IDs affects market liquidity in our model. We test this prediction using a natural experiment. On April 23, 2001, the limit order book for stocks listed on Euronext Paris became anonymous. For CAC40 stocks, we find that following this change, the average quoted spreads declined significantly while the average quoted depth increased significantly.

Abstracts

Catherine D'Hondt – Les Facultés Universitaires Catholiques de Mons
Rudy De Winne – Les Facultés Universitaires Catholiques de Mons
Alain François-Heude – Université de Perpignan

Hidden Orders on Euronext: Nothing is quite as it seems Session

This paper is devoted to hidden order submission on Euronext, especially for the CAC40 stocks. The goal is twofold. On the one hand, we investigate the impact of hidden order use on market depth an pretrade transparency. From the order book rebuilding, we find that there are twice more quantities available in the 5 best limits than what traders can observe on the market screens. We also show that hidden depth in the top of the order book varies a lot all along the continuous session while displayed depth is quite stable. Furthermore, we highlite that short-term volatility affects significantly hidden depth magnitude. On the other hand, we compare hidden order placement with usual order submission. We analyze order aggressiveness an interactions between the order flow and the order book. Our results suggest that hidden order traders are mainly liquidity suppliers who focus especially on the 5 best limits of the order book. They also appear to focus on a gioven market side at a point in time an are not concerned with what happens on the opposite market side. Finally, we find evidence of splitting strategies for hidden orders placed below the bid or ask price.

Abstracts

Market Microstructure II D5

Mathias Drehmann – Bank of England
Jörg Oechssler – Rheinische Friedrich-Wilhelms-Universität Bonn
Andreas Roider – Rheinische Friedrich-Wilhelms-Universität Bonn

Herding and Contrarian Behavior in Financial Markets - An Internet Experiment

Session

We report results of an internet experiment designed to test the theory of informational cascades in financial markets. More than 6000 subjects, including a subsample of 267 consultants from an international consulting firm, participated in the experiment. As predicted by theory, we find that the presence of a flexible market price prevents herding. However, the presence of contrarian behavior, which can (partly) be rationalized via error models, distorts prices, and even after 20 decisions convergence to the fundamental value is rare. We also study the effects of transaction costs and the expectations of subjects with respect to future prices. Finally, we look at the behavior of various subsamples of our heterogeneous subject pool.

Lars Nordén – Stockholms universitet
Fredrik Berchtold – Stockholms universitet

Information Asymmetry, Bid-Ask Spreads and Option Return

Session

This study analyses the information asymmetry at the stock market as the existence of two different types of information flow. The first type represents changes in information where informed traders know if the stock price will increase or decrease. The second type is less specific the direction is unknown, but the informed traders know that the stock price will either increase or decrease. The different flows of information are estimated within a GARCH framework, using shocks in Swedish OMX-index returns and index option strangle returns respectively. The results show significant conditional variance in both index returns and options strangle returns, although with notable differences. The index returns exhibit a high level of variance persistence and an asymmetric initial impact of return shocks to variance (leverage effect). The strangle returns have relatively lower persistence in conditional variance, but a higher (and virtually symmetric) initial impact of return shocks to variance. A time series regression analysis of call and put option bid-ask spreads is performed, relating spreads to these two measures of information flows, as well as other explanatory variables. The regression results show that option spreads are related to shocks in index and options strangle returns, as well as to conditional variance of the stock returns. Hence, market makers appear to alter option bid-ask spreads primarily in response to unexpected shocks in stock and strangle returns and secondarily to changes in the expected variance level of stock returns.

Abstracts

Gregor Dorfleitner – Universität Augsburg

How Short-termed is the Trading Behavior in German Futures Markets? An Empirical Comparison of Eurex Futures Session

This paper empirically investigates smoothing-out ratios and average holding periods of different Eurex futures such as the Euro-Bund, the DAX, the DJ Euro STOXX 50 future and others from 1999 to 2002. A methodology that only needs daily volume and open interest data is presented (including an innovative open interest correction algorithm). It can be shown that average holding periods decrease over time in most of the examined futures. Other interesting results are the June contract phenomenon in the DAX future and a 09-11 effect in several Eurex futures.

Abstracts

Price Dynamics E1

Diana Ribeiro – Warwick Business School
Stewart Hodges – Warwick Business School

Price Dynamics for Continuously Produced Storable Commodities: Competitive and Monopolistic Markets Session

We develop a new structural model in continuous time for storable commodities, which is primarily developed for storable energy commodities, such as natural gas and oil. Our model formulation establishes a link between the discrete time models developed in the past for agricultural commodities and the reduced form models recently developed for energy storable commodities. Particularly, we formulate and solve the model following the structural models framework but we simultaneously incorporate characteristics of reduced form models, namely the mean-reversion of spot prices. Such mean-reversion is incorporated in our model through the definition of the exogenous supply as an Ornstein-Uhlenbeck process. The explicit definition of the microeconomic assumptions of our model makes it flexible and relatively easy to modify. We build our model having storable energy commodities in mind but it would be also well suited for other storable commodities after a few small changes. We formulate our model in a general framework and later specify it for two distinct economies - pure competition and storage monopoly. We use stochastic dynamic programming approach and since an analytical solution is not possible to obtain, we get a numerical solution to the problem. We analyze and compare the results for both economic scenarios. Our main results are in accordance with the theory of storage: the presence of storage in the commodities market smoothes the prices behaviour compared to the case where no storage is possible. This result is stronger in the case of pure competition than in the case of monopolistic storage.

Sébastien Galy – Universität Konstanz

Illiquidity and the Wealth Effect Session

Investors attitudes towards risk and the resulting impact on prices in financial markets are determined by changes in their wealth. This wealth effect, however, provides a poor explanation of the observed distribution of futures prices for reasonable values of the degree of risk aversion. This paper shows that illiquidity in the futures market, modeled endogenously as a trading cost, increases the strength of the wealth effect for the same degree of risk aversion. The resulting distribution of futures prices presents a more pronounced left fat tail and left skewness than would have been implied by the wealth effect alone.

Abstracts

Bjarne Astrup Jensen – Copenhagen Business School

On Valuation Before and After Tax in No Arbitrage Models: Tax Neutrality in the Continuous Time Model Session

We establish necessary and sufficient conditions for a linear taxation system to be neutral - within the continuous-time ¨no arbitrage¨ model - in the sensethat valuation is invariant to the process for tax rates and choice of realization dates as well as immune to timing options attempting to twist the time profile of taxable income through wash sale transactions. We also demonstrate that the portfolio choice can be quite different across different neutral taxation systems.

Andre Kronimus – WHU Otto-Beisheim-Hochschule

Firm Valuation in a Continuous-Time SDF Framework Session

This paper proposes a unifying SDF framework to firm valuation in continuous time that nests all existing firm valuation models. It generalizes the fundamental asset pricing equation by introducing controlled state variable, discount factor, and cash flow processes. The generalized SDF framework of asset pricing constitutes the basis of all firm valuation models. The SDF approach to firm valuation displays several advantages: it can handle models from the contingent claims, real options, and asset pricing literature in a consistent manner; it integrates no-arbitrage and general equilibrium models; it allows for an easy formalization of qualitative notions as e.g. control premia; and it bridges the gap between firm valuation models aiming at the determination of market values and those aiming at the computation of subjective firm values for an individual investor. Furthermore, the SDF framework highlights that firm valuation models can differ in only 6 dimensions: state variables, SDF derivation, SDF specification, cash flow process, set of feasible control laws, and applicable boundary conditions. The existing continuous-time firm valuation models of Gordon [1962], Brennan and Schwartz [1982a,b, 1984], Bakshi and Chen [2001], and Schwartz and Moon [2000, 2001] are derived as special cases of the generalized SDF framework and related to each other.

Abstracts

Interest Rates E2

Kristian R. Miltersen – Norwegian School of Economics and Business Adm., Bergen
J. Aase Nielsen – University of Aarhus
Klaus Sandmann – Rheinische Friedrich-Wilhelms-Universität Bonn

The Futures Market Model and No-Arbitrage Conditions on the Volatility Session

Interest rate futures are basic securities and at the same time highly liquid traded objects. Despite this observation, most models of the term structure of interest rate assume forward rates as primary elements. The processes of futures prices are therefore endogenously determined in these models. In addition, in these models hedging strategies are based on forward and/or spot contracts and only to a limited extent on futures contracts. Inspired by the market model approach of forward rates by Miltersen, Sandmann, and Sondermann (1997), the starting point of this paper is a model of futures prices. Using the prices of futures on interest related assets as the input to the model, new no-arbitrage restrictions on the volatility structure are derived. Moreover, these restrictions turn out to prevent an application of a market model based on futures prices.

Joao Pedro Nunes – Instituto Superior de Cincias do Trabalho e da Empresa
Luis Oliveira – Instituto Superior de Cincias do Trabalho e da Empresa

Quasi-Analytical Multi-Factor Valuation of Treasury Bond Futures with an Embedded Quality Option Session

An approximate and quasi closed-form pricing solution is proposed for the quality option embedded in Treasury bond futures contracts, under a multi-factor Gaussian Heath, Jarrow and Morton (1992) framework. Using a rank 1 approximation, in the sense of Brace and Musiela (1994), it is possible to write the price of a Treasury bond future (with an embedded quality option) as a univariate deterministic integral, no matter the diversity of the underlying delivery basket or the dimension of the term structure model under analysis. Based on a Monte Carlo study, such pricing solution is shown to be extremely accurate and expedite. The proposed pricing model is then applied to test the magnitude of the quality option for the EUREX' Treasury bond futures contracts, during the period between May 1999 and September 2001. For that purpose, the term structure of risk-free interest rates was estimated in accordance to the consistent parametrization suggested by Bjork and Christensen (1999), and using all the German Treasury bonds traded during the sample period. Then, and for each cross-section, the model' volatility function was calibrated to the market prices of all (traded) Euro-Schatz, Euro-Bobl, and Euro-Bund futures contracts, through the proposed approximate pricing solution. The empirical analysis suggests that the quality option possesses an insignificant impact on EUREX' futures prices: on average, this delivery option only accounts for 5 basis points of the futures prices. Such finding can be explained by the exiguity and homogeneity of the EUREX' delivery baskets, when compared, for instance, with the diversity and number of deliverable bonds underlying the CBOT' T-bond futures contracts. Moreover, the fact that the large majority of the Treasury bond futures contracts is off-set (just) before the last trading day tends to attenuate the buyers' need to bid-down the futures prices.

Abstracts

Rainer Jankowitsch – TU Wien
Stefan Pichler – TU Wien

Currency Dependence of Corporate Credit Spreads Session

Many pricing and risk management models need credit spread curves as an input. In the corporate bond market the estimation of credit spread curves is not trivial. Most issuers have only too few bonds outstanding and frequently these bonds are denominated in different currencies. To ensure a sufficient number of bonds for the estimation procedure in many cases bonds in different currencies have to be used which implies that the estimation procedure has to take into account potential currency effects. Under the hypothesis of zero correlation between the default variables and the exchange rates deflated by the relevant money market accounts we show using a rather general pricing framework that credit spreads are expected to be equal across different currencies. This paper analyses these effects and presents a new model which allows to estimate a credit spread curve for a single issuer with bonds in different currencies. This new model is based on the multi-curve estimation approach which allows a parsimonious joint estimation of a risk free term structure and the credit spread curve of the issuer. We reject the hypothesis of zero correlation between credit and exchange rate risk and present empirical evidence that there are significant differences of issuer specific credit spreads across different currencies in a representative sample of international corporate bonds. Moreover, this implies that dollar related credit spread curves cannot be used without special care for pricing defaultable claims denominated in other currencies.

Abstracts

Portfolio Selection E3

Thomas Steinberger – European University Institute Florence
Thomas Hintermaier – Institut für Höhere Studien, Wien

Occupational Choice and the Private Equity Premium Puzzle Session

This paper suggests a solution to what has become known as the ¨private equity premium puzzle¨ (Moskowitz and Vissing-Jorgensen (2002)). We interpret occupational choice as a dynamic portfolio choice problem of a lifecycle investor facing a liquidity constraint and imperfect information about the profitability of potential business. In this setting, becoming an entrepreneur is equivalent to investing in non-traded private equity capital subject to transaction costs. We model the return on private equity as the sum of two components, the individual ability of the entrepreneur and idiosyncratic business risk. Information is imperfect, because only entrepreneurs observe their own business risk realizations. Using numerical techniques we find that the model generates the observed return structure for private equity using standard CRRA-preferences and fully rational expectations.

Holger Kraft – ITWM, Kaiserslautern

Optimal Portfolios with Stochastic Volatility Session

Given a portfolio problem with stochastic volatility and an investor maximizing utility from terminal wealth with respect to a power utility function, we present an approach to obtain a Feynman-Kac representation of the candidate for the value function and of the candidate for the optimal portfolio process. This is done in a Brownian framework where we assume that the dynamics of volatility can be described by a stochastic differential equation with sufficiently integrable and progressively measurable coefficients. Then, we prove a verification theorem which is tailored to this framework. Applying this result, we solve the portfolio problem for Heston's model and for the model of Fleming/Hernandez-Hernandez (2001).

Abstracts

Andrea Seier – Universität Essen

Are Minimum Return Gaurantees really as Expensive? Session

This paper analyzes the costs and benefits of minimum return guarantees for capital invested in pension plans as introduced by the German pension reform of 2001. Data on stock and bond returns between 1954 and 2001 are used to compare different investment strategies that insure the portfolio against losses with a pure equity investment strategy. Using historical and simulated data, final wealth levels for individuals with different investment horizons are compared. Certainty equivalent wealth levels for different degrees of risk aversion are calculated. The capital guarantee reduces mean returns by about 0.5 percentage points, while reducing the portfolio risk. The guarantee is preferred by investors with reasonable degrees of risk aversion.

Abstracts

Capital Markets I E4

Mukarram Attari – University of Wisconsin-Madison
Antonio Mello – University of Wisconsin-Madison
Martin Ruckes – University of Wisconsin-Madison

Arbitraging Arbitrageurs

Session

This paper develops a theory of strategic trading in markets with large influential arbitrageurs. If arbitrageurs are not very well-capitalized, margin requirements or capital constraints make their trades predictable. Other market participants can exploit this by trading against them. Competitors may even find it optimal to lend to arbitrageurs that are financially fragile; additional capital makes the arbitrageurs more viable, and lenders can reap profits from trading against them for a longer time. The strategic behavior of these market participants has implications for the functioning of financial markets. Strategic trading may produce significant price distortions, increase price manipulation activities, and trigger forced liquidations of large traders.

David Feldman – Ben-Gurion University of the Negev
Russell Winer – New York University

Separating Signaling Equilibria Under Random Relations Between Costs and Attributes

Session

We identify conditions for separating signaling equilibria where attributes are randomly related to costs. Under discrete attributes, a necessary and sufficient condition is the ordering of the cost distributions conditional on attributes by the Monotone Likelihood Ratio Property (MLRP). An equivalent condition is the monotone ordering of the cost elasticities of these distributions. Under a continuum of attributes, a necessary and sufficient condition is ordering by the cost elasticity of the cost density functions with respect to the original probability measure and with respect to a probability measure modified by the ¨attribute payoff function¨. This condition is the equivalent, under a continuum of attributes, to the condition of ordering by the MLRP. We, thus, introduce the definition of Generalized MLRP which orders posterior distributions induced by distributions as well as by particular realizations. We examine a ¨Spence labor market¨ in which education costs are randomly related to productivity.

Abstracts

Alexander Kempf – Universität zu Köln
Klaus Kreuzberg – Universität zu Köln

Market Timing and Security Market Line Analysis Session

Security market line analysis, which is standard in studies on mutual fund performance, has been the focus of much controversy. Jensen (1972) and Grinblatt and Titman (1989), (1995) blame security market analysis to overestimate the beta of a market timing fund and therefore to underestimate its performance. Admati and Ross (1985) and Dybvig and Ross (1985) argue that, for this reason, successful market timing fund managers might plot below the security market line. This paper demonstrates that security market line analysis neither provides an upwardly biased estimate of the outside systematic fund risk, nor does it blame successful market timers to be poor performers. We prove this in three steps: First, we show that in markets with asymmetric information a fund investment is more risky for a fund investor, who does not have access to the fund's trade record, than it is for the fund manager. The ¨bias-in-beta¨ reported by Jensen (1972) and Grinblatt and Titman (1989), (1995) is a second risk factor arising in delegated portfolio management. Second, because fund investor and fund manager have different risk positions, they also have different sets of efficient portfolios. Third, using this result, we prove that (i) the Jensen measure of an uninformed fund manager is zero, that (ii) the Jensen measure of a market timer is positive if she has superior market timing information and uses this information in the interests of her shareholders, and that (iii) the Jensen measure is the larger the better the information of the fund manager is. Our results suggest that research on mutual fund performance based on security market line analysis is unbiased, regardless of whether funds are market timers or not.

Capital Markets II E5

Stefanie Franzke – Center for Financial Studies, Frankfurt
Christian Schlag – Johann Wolfgang Goethe-Universität Frankfurt am Main

Over-Allotment Options in IPOs on Germany's Neuer Markt - An Empirical Investigation Session

Over-allotment arrangements are nowadays part of almost any initial public offering. The underwriting banks borrow stocks from the previous shareholders to issue more than the initially announced number of shares. This is combined with the option to cover this short position at the issue price. We present empirical evidence on the value of these arrangements to the underwriters of initial public offerings on the Neuer Markt. The over-allotment arrangement is regarded as a portfolio of a long call option and a short position in a forward contract on the stock, which is different from other approaches presented in the literature.
Given the economically substantial values for these option-like claims we try to identify benefits to previous shareholders or new investors when the company is using this instrument in the process of going public. Although we carefully control for potential endogeneity problems, we find virtually no evidence for a reduction in underpricing for firms using over-allotment arrangements. Furthermore, we do not find evidence for more pronounced price stabilization activities or better aftermarket performance for firms granting an over-allotment arrangement to the underwriting banks.

Hans-Peter Burghof – Universität Hohenheim
Tilo Kraus – Universität München

Post-IPO Performance and the Exit of Venture Capitalists Session

We test several implications of venture capital investment for the post-IPO performance of firms using data of 312 IPOs on Germanys Neuer Markt. Through tighter corporate control, third party certification and a reduced heterogeneity of opinions companies financed by Venture Capital firms might outperform their counterparties in the aftermarket of an IPO. However, this positive effect of VC backing on aftermarket performance could be reversed when Venture Capitalists seek exit from their investment. The discontinuation of a blockholders exercised corporate control, signalling of insider knowledge as well as possible downward sloping demand curves provide an analytical framework that explains why the return series of VC backed IPOs might show a significant breakpoint at the time when Venture Capitalists exit from their investments. Our empirical evidence suggests that the expiration of lock-up periods as the earliest possible point of time for an exit represents such as breakpoint as Venture Capital backed IPOs outperform their counterparts before, but underperform around and after the expiration.

Abstracts

Wolfgang Bessler – Justus-Liebig-Universität Gießen
Andreas Kurth – Justus-Liebig-Universität Gießen

The Performance of Venture-Backed IPOs in Germany: Exit Strategies, Lock-up Periods, and Bank Ownership Session

The objective of this paper is to investigate the stock price performance of Initial Public Offerings (IPOs) in Germany. In the empirical analysis we include 305 firms that went public at the ¨Neuer Markt¨, the German stock market for growth companies, during the period from 1998 to 2001. Of special interest is the performance of venture-backed IPOs and here especially the ones in which the venture capitalist is a financial institution. In the German universal banking system banks usually act as both commercial banks and investment banks. Thus, the banks are on one hand equity provider and on the other hand underwriter for the IPO. Moreover, they may have provided bank loans to the firm before it went public. The interesting question is whether the bank acts in its own interest and maximizes the value of the shares for its own exit as a venture capitalist or whether the bank acts in the interest of the firm that went public or even in the interest of the investors. Thus, there are a number of interesting agency problems in these various bank-customer relationships. The empirical results suggest that there are in fact serious agency problems in the German market for growth firms. During the first six months after the IPO, the owners including management and venture capitalists usually are not allowed to sell their shares (lock-up period). As the agency theory would predict, there is a strong out-performance during the first six months after the IPO and a significant under-performance following the end of the lock-up-period. In case of longer lock-up periods, e.g. 12 or 18 months, the highest stock price usually occurs at these later dates. It appears that management and venture capitalist are able to time their exit perfectly at the highest stock price. The question that is addressed at the end of the paper is whether the banks have certain timing abilities or whether they may use various means of influencing the stock price. There seems to be empirical evidence that banks and management act in their own interest and to the disadvantage of other investors.

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German Finance Association

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Locations

Conference buildings

On the following page you can find the campus map. The conference buildings are marked with Ⓐ and Ⓑ. The sessions A, B and C take place in the so-called ¨Haus Recht und Wirtschaft I¨ (ReWi I), which is marked with Ⓐ. The sessions D and E take place in the building, ¨Haus Recht und Wirtschaft II¨ (ReWi II) which is labelled with Ⓑ.

Public transport to the campus:
Bus no. 6, 6A, 54, 55, 56, 57, 58, 64, 65, 68.

Mensa

Lunch on Friday will be served between 12:30 and 14:00 in the Mensa. Every participant will find a voucher in the conference bag. On the campus map, the Mensa is marked with Ⓒ. It is within walking distance (approx. 700m).

Sektkellerei Kupferberg

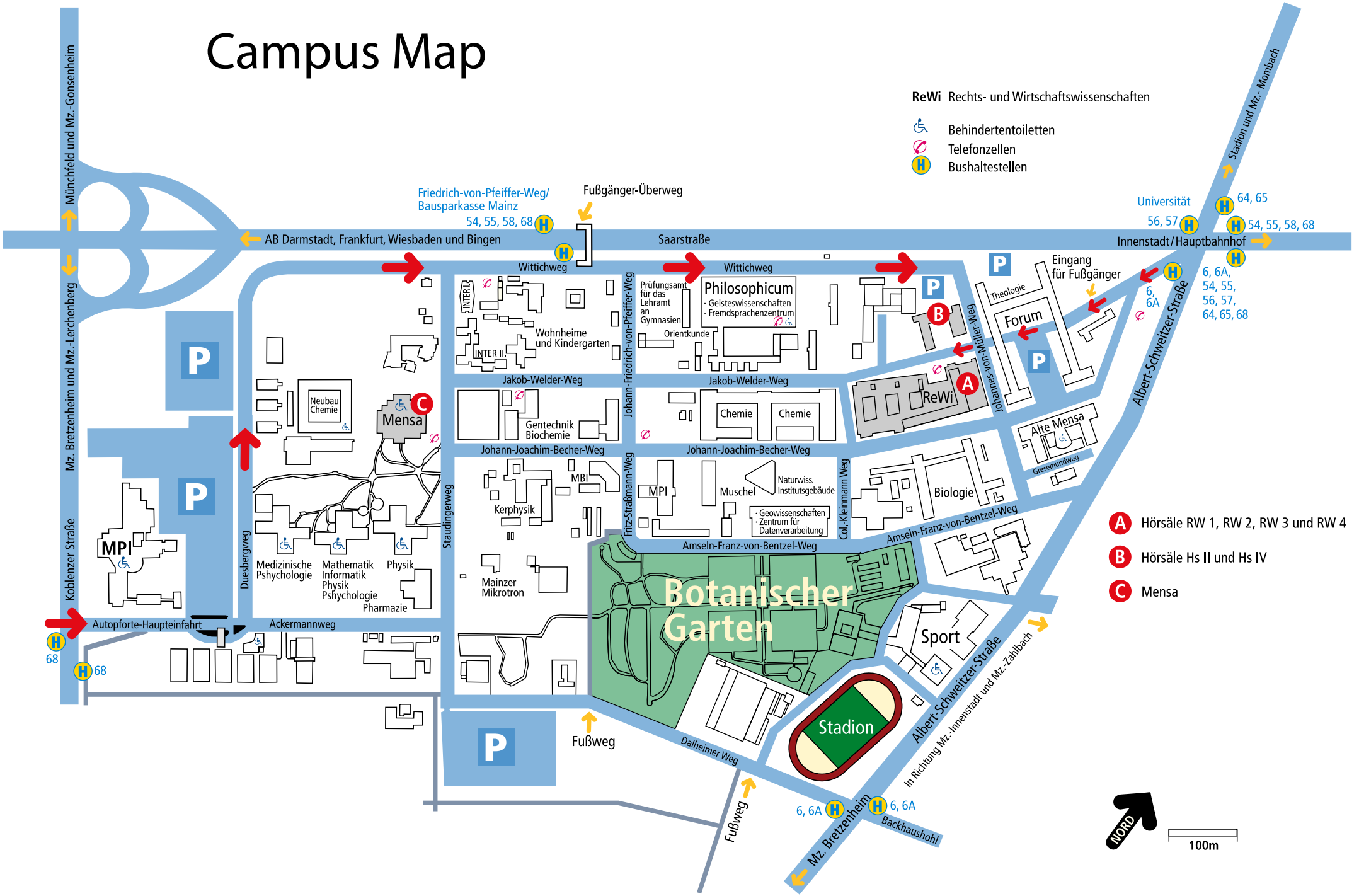
Kupferbergterrasse, 55116 Mainz

Remember that special registration is required for the evening event (30 Euro per person).

Bus transfer:
On Friday, October 10, 2003, buses depart from the conference buildings at 18:20.

Public transport:
Please enter a bus or tram, which is heading for Schillerplatz (e.g. no. 54, 57, 60 or 71). Exit at Schillerplatz and follow Emmerich-Josef-Straße until you reach Terrassenstraße. After climbing the stairs on the right hand side you reach Kupferbergterrasse.

Campus Map


ReWi Rechts- und Wirtschaftswissenschaften
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Bushaltestellen
Münchfeld und Mz.-Gonsenheim
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C Mensa
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