# **Multinational Finance Society**

**Conference Proceedings** 

Eighth Annual Conference June 23-27, 2001 Lake Garda, Verona, Italy

**Sponsored by:** 

University of Brescia Italy

School of Busines-Camden Rutgers University U.S.A.

> University of Verona Italy

## LETTER FROM THE PROGRAM CHAIR

Dear Conference Participant:

The Eighth Annual Conference of the Multinational Finance Society (MFS) provides a venue for exchanging new ideas and discussing new developments in financial research and practice. As in the past, this conference provides opportunities to renew professional contacts across national borders and meet new friends and colleagues in the academic and practitioner communities with a shared interest in finance as a universal discipline of human endeavor. I am pleased that you have decided to help us continue this tradition in this cultured and beautiful part of Italy.

Consistent with the Society's mission, our program has a multinational character and is designed around engaging papers in corporate finance, investments, derivative securities, mathematical finance, and international finance. The program comprises 49 sessions and 149 discussion papers representing over 300 authors from 40 countries. It would have been impossible to produce this program without the dedication and skill of the Program Co-chairs, Francesco Paris and Giovanni Tondini.

For their indispensable help in organizing the interesting sessions, we thank George Athanassakos, Laurence Booth, Glenn Boyle, Ephraim Clark, Andrea Gamba, Shmuel Hauser, Michael Ioannides, Harry Kat, Johan Knif, Lawrence Kryzanowski, Gulnur Muradoglu, Yair Orgler, Edgar Ortiz, George Papaioannou, Kate Phylaktis, Franco Spinelli, Nickolaos Travlos, Wim Westerman, and Uzi Yaari. For their hard work in planning and organizing the social activities, we thank the local committee chaired by Francesco Paris and Giovanni Tondini, which included Nicola Doninelli, Paolo Falbo, Giuseppe Gaburro, Andrea Gamba, Cristian Pelizzari, Francesco Rossi, Maria Grazia Speranza, Franco Spinelli, and Anna Torriero. The success of any conference depends on the expertise and cooperation of many: authors, discussants, and session chairs. We all stand to benefit from the wide participation in this conference. I wish to extend special thanks to our keynote speaker, Professor Edwin Elton, for agreeing to serve in this capacity.

The undertaking of this conference is made possible by the generous support of Francesco Rossi, President of the University of Verona, Milton Leontiades, Dean of the School of Business of Rutgers University-Camden, George Tsetsekos, Vice President of Academic Administration at Drexel University, as well as the following institutions: The International Activities Center at the University of Brescia, the Industrial Association of Brescia (AIB), the Banca Intermobiliare Di Investimanti e

Gestioni S.p.A, IntesaBci, Wilfrid Laurier University, and the Merrill Lynch Center for the Study of International Financial Services and Markets at Hofstra University.

Finally, I would like to acknowledge the dedication and valuable contribution of the MFS staff, Anna Shnayder and Theophanis Theodossiou. Anna efficiently managed the flow of all submitted manuscripts and prepared the conference materials. Theo provided excellent website support for the conference.

I wish you all a productive conference and an enjoyable stay in Italy.

Sincerely yours,

Peter Theodossiou Conference Program Chair



Peter Theodossiou (left) and Stavros Zenios, discussing next year's MFS conference in Cyprus



Peter Theodossiou presenting a plaque to Edwin Elton, the conference's keynote speaker.



George Athanassakos presenting a plaque to Minna Martikainen, widow of the MFS late President, Teppo Martikainen



Top & Bottom : pictures of the conference participants at the luncheon on June 25, 2001



Conference participants at the luncheon on June 26, 2001



Acting President, George Athanassakos (left) and Chair of the local organising Committee, Francesco Paris (right)



Co-Chair of the local organizing committee, Giovanni Tondini, receiving a plaque for outstanding services at the Gala Dinner in Brescia, Italy on June 27, 2001



Francesco Paris receiving a plaque for outstanding services at the Gala Dinner in Brescia, Italy on June 27, 2001

## EIGHTH ANNUAL CONFERENCE MULTINATIONAL FINANCE SOCIETY June 23-27, 2001, Lake Garda, Verona, Italy

The following two papers presented at the conference shared the *Teppo Martikainen Paper Award* of US-\$1000, in memory of his late Presidentship,

#### "Managerial Shareholdings in Acquired Corporations"

Paul Halpern - University of Toronto, Canada Robert Kieschnick - University of Texas at Dallas Wendy Rotenberg - University of Toronto, Canada

#### and

"The Price of Forward Contract Illiquidity" Rafael Eldor - The Interdisciplinary Center, Israel Michael Kahn - Bank of Israel, Israel Shmuel Hauser - Ben-Gurion University of Negev and Israel Securities Authority, Israel

The selection of these papers was based on the votes of the session chairs and members of the Program Organizing Committee.

P. Theodossiou Program Chair

## GENERAL INFORMATION

#### **CONFERENCE REGISTRATION**

Saturday, June 23	5:00 p.m. – 8:00 p.m.
Sunday, June 24	6:00 p.m. – 8:00 p.m.
Monday, June 25	8:00 a.m. – 3:00 p.m.
Tuesday, June 26	8:00 a.m. – 3:00 p.m.

#### Sunday, June 24

Complimentary trip to Venice for the registered conference participants.

Buses will leave Hotel Poiano at 9:00 a.m. to reach Venice around 11:00 a.m. Expected arrival at Hotel Poiano is 8:00 p.m.

#### **RECEPTIONS, LUNCHEONS AND REFRESHMENTS**

#### Sunday, June 24

Barbeque Reception at Hotel Poiano	8:45 p.m.
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#### Monday, June 25

Refreshments	10:00 a.m. – 10:15 a.m.
Luncheon	12:00 p.m. – 1:30 p.m.
Refreshments	3:15 p.m. – 3:30 p.m.
Meeting of the Board of Directors and Trustees	5:30 p.m. – 7:30 p.m.
Dinner at Hotel Poiano	8:00 p.m.
Tuesday, June 26	
Refreshments	10:00 a.m. – 10:15 a.m.
Luncheon	12:00  p.m. - 1:45  p.m.

Luncheon	12:00 p.m. – 1:45 p.m.
Refreshments	3:15 p.m. – 3:30 p.m.
Tour of Brescia, followed by dinner	6:30 p.m. – 12:00 a.m.

## LIST OF SESSIONS - Monday, June 25, 2001

### Monday 8:30-10:00

Session 1	Corporate Governance I	Room 1
Session 2	Option Prices, Hedging, and VaR	Room 2
Session 3	Stock Market, Firm Regulations and Performance	Room 3
Session 4	Portfolio Optimization	Room 4
Session 5	Turkish Financial Issues	Room 5
Session 6	Asset Pricing Models	Room 6
Session 7	Foreign Exchange Markets	Room 7

### Monday 10:15-11:45

Session 8	Corporate Takeovers I	Room 1
Session 9	Skewness, Kurtosis, and Option Pricing	Room 2
Session 10	Canadian Empirical Finance Issues	Room 3
Session 11	Topics in Insurance	Room 4
Session 12	Diversification and Portfolio Issues	Room 5
Session 13	Exchange Rates Premia and Hedging	Room 6
Session 14	Multinational and Investment Banking	Room 7

#### Monday 1:45-3:15

Session 15	Corporate Takeovers II	Room 1
Session 16	Mathematical Finance	Room 2
Session 17	International Firm	Room 3
Session 18	Strategic Issues in International Investment	Room 4
Session 19	Dutch Corporate Financial Issues	Room 5
Session 20	Macroeconomics and Finance	Room 6
Session 21	Uses of Derivatives	Room 7

#### Monday 3:30-5:00

Session 22 International Financial Issues N	1 1100
Session 23 Calibration in Derivatives Models Re	oom 2
Session 24 Dual Listing Re	oom 3
Session 25 Financial Econometrics Re	oom 4
Session 26 New Zealand Financial Issues Re	oom 5
Session 27 Credit Risk, Bonds, and Eurodollar Deposits Re	oom 6

## LIST OF SESSIONS - Tuesday, June 26, 2001

#### Tuesday 8:30-10:00

Session 28	Dividend Policy and Returns	Room 1
Session 29	Alternative Investments	Room 2
Session 30	Emerging Markets	Room 3
Session 31	Trading of Securities	Room 4
Session 32	Efficiency in Canadian Capital Markets	Room 5
Session 33	Exchange Rates	Room 6
Session 34	Corporate Governance II	Room 7
Tuesday I	):15-11:45	
Session 35	Public Offerings I	Room 1
Session 36	Asset Liability and Bond Pricing	Room 2
Session 37	Financial Econometrics Issues	Room 3
Session 38	Mutual and Hedge Funds	Room 4
Session 39	Valuation	Room 5
Session 40	Emerging Market Issues	Room 6
Session 41	Asian Financial Issues	Room 7
Tuesday 1:45-3:15		

Session 42	Public Offerings II	Room 1
Session 43	Hedging Financial Risk	Room 2
Session 44	Corporate and Financial Accounting Issues	Room 3
Session 45	International Investment	Room 4
Session 46	Trading Rules	Room 5
Session 47	Exchange Rate Behavior	Room 6
Session 48	Market Efficiency	Room 7

#### Tuesday 3:30-5:30

Session 49	Panel Session on Consolidation Problems in	
	the Financial Services Industry in Europe	Room 1

## Monday 8:30-10:00

## SESSION 1 CORPORATE GOVERNANCE I

Room 1

Session Chair: Nickolaos Travlos - ALBA, Greece, and Cardiff Business School, UK

#### Managerial Shareholdings in Acquired Corporations Paul Halpern - University of Toronto, Canada Robert Kieschnick - University of Texas-Dallas Wendy Rotenberg - University of Toronto, Canada

Discussant: William Carney - Emory University

**The Pricing of Relative Performance Based Incentives for Executive Compensation** António Câmara - University of Strathclyde, UK

Discussant: Tony van Zijl - Victoria University of Wellington, New Zealand

#### A Compound-Option Model for the Valuation of the Manager's Incentive Fee and Its Impact on the Manager's Adverse Incentive

Francesco M. Paris - University of Brescia, Italy

Discussant: Arthur C.C. Herst - Open University and Maastricht University, Holland

## The Value of Voting Rights to Majority Shareholders: Evidence from Dual Class Stock Unifications

Shmuel Hauser - Ben-Gurion University and Israel Securities Authority, Israel Beni Lauterbach - Bar-Ilan University, Israel

Discussant: Samuel Szewczyk - Drexel University

#### **SESSION 2**

**OPTION PRICES, HEDGING, AND VAR** Session Chair: Robert Tompkins - University of Technology, Vienna, Austria

A Neural Network Versus Black-Scholes: A Comparison of Pricing and Hedging Performances

Henrik Amilon - Lund University, Sweden

Discussant: Christine Brown - University of Strathclyde, UK

### Hedging Options with Different Time Units in the Pricing Models

Mikael Vikström - Estlander & Rönnlund Financial Products Ltd., Finland

*Discussant*: Andrea Roncoroni - ESSEC Business School and University of Paris Dauphine, France

Room 2

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## Pricing Index Options with Stochastic Volatility: On the Efficiency of the Square Root Model

Ronnie Söderman - Estlander & Rönnlund Financial Products Ltd., Finland Daniel Djupsjöbacka - Estlander & Rönnlund Financial Products Ltd., Finland

*Discussant*: Aku Penttinen - Swedish School of Economics and Business Administration, Finland

#### **Monte Carlo Estimations of Greeks**

San-Lin Chung - National Central University, Taiwan

Discussant: Thorsten Lehnert - University of Maastricht, The Netherlands

#### **SESSION 3**

#### **STOCK MARKET, FIRM REGULATIONS AND PERFORMANCE** Session Chair: Thomas McInish - University of Memphis

**The Impact on the Stock Market of Changes in Regulation of Companies** Nic Francis - Europe Economics Paul Grout - University of Bristol, UK Anna Zalewska-Mitura - Maastricht University, The Netherlands

Discussant: Björn Hansson - Lund University, Sweden

A Simple Variable to Forecast a Firm's Operating Performance and Its Stock Returns Francis Cai - William Paterson University of New Jersey

Discussant: Franco Parisi - Universidad de Chile, Chile

#### **An Evaluation of Good Corporate Governance Practice in Brazil** Ricardo Leal - Universidade Federal de Rio de Janeiro, Brazil Claudia L. Oliveira - Universidade Federal de Rio de Janeiro, Brazil

Discussant: Wim Westerman - University of Groningen, The Netherlands

### SESSION 4 PORTFOLIO OPTIMIZATION

Session Chair: Stavros Zenios - University of Cyprus, Cyprus, and The Wharton School, University of Pennsylvania

### **Portfolio Optimization with Drawdown Constraints** Alexei Chekhlov - TrendLogic Associates, Inc.

Stanislav Uryasev - University of Florida Michael Zabarankin - University of Florida

Discussant: Andrea Gamba - University of Verona, Italy

Room 4

#### Mean Variance Efficient Portfolios by Linear Programming: A Review of Some Portfolio Selection Criteria of Elton, Gruber and Padberg Bjarne Astrup Jensen - Copenhagen Business School, Denmark

Discussant: Edwin Elton - New York University

LP Solvable Models for Portfolio Optimization: A Survey and Comparison Renata Mansini - University of Brescia, Italy Włodzimierz Ogryczak - Warsaw University of Technology, Poland M. Grazia Speranza - University of Brescia, Italy

Discussant: Andreas Graflund - Lund University, Sweden

#### SESSION 5 TURKISH FINANCIAL ISSUES Session Chair: Gülnur Muradoğlu - University of Manchester, UK

**Turkish Financial Issues** Turalay Kenc - University of Manchester, UK

Discussant: Edward Zychowicz - Hofstra University

## Forecasting Short Run Performance of Initial Public Offerings in Istanbul Stock Exchange

Ramazan Aktas - Turkish Military Academy, Turkey Mehmet Baha Karan - Hacettepe University, Turkey Kursat Aydogan - Bilkent University, Turkey

Discussant: Katerina Lyroudi - University of Macedonia, Greece

#### **Determinants of Private Savings Behaviour in Turkey** Kivilcim Metin Özcan - Bilkent University, Turkey Seda Ertaç - University of California

Discussant: Zeljan Suster - University of New Haven

Securities Recommendations, Small Investors and Insiders: Who Benefits? Bilgehan Yazici - ABN AMRO Asset Management, Turkey Gülnur Muradoğlu - University of Manchester, UK

Discussant: David Lovatt - University of East Anglia, UK

#### SESSION 6 ASSET PRICING MODELS

Session Chair: Andres Loflund - Swedish School of Economics and Business Administration, Finland

The Empirical Content of the Arbitrage Pricing Theory Across Time in the UK Stock

Room 5

#### Market

Nasreen Soufian - Manchester Metropolitan University, UK Nathan Joseph - University of Manchester, UK Robert J. Ritchie - Manchester Metropolitan University, UK

*Discussant*: Christos Grose - University of Birmingham, UK, and University of Macedonia, Greece

The CAPM Family: Living Dead and Loving It

Sébastien Galy - Concordia University, Canada

Discussant: Swaminathan Sankaran - University of Regina, Canada

#### Statistical Tests for Return-Based Style Analysis

Roger Otten - Maastricht University, The Netherlands Dennis Bams - ING Group Amsterdam and LIFE, Maastricht University, The Netherlands

Discussant: Steven Shuye Wang - Hong Kong Polytechnic University, Hong Kong

#### SESSION 7 FOREIGN EXCHANGE MARKETS Session Chair: Kate Phylaktis - City University Business School, UK

**Credibility With Markov Regime Switches in the European Monetary System** Nicholas Sarantis - London Guildhall University, UK Sylviane Piard - Universidad Autonoma de Madrid, Spain

Discussant: Dennis Bams - Maastricht University, The Netherlands

#### **Estimation and Arbitrage Opportunities for Exchange Rate Baskets**

Costanza Torricelli - University of Modena and Reggio Emilia, Italy Danilo Mercurio - Humboldt University, Germany

Discussant: Federico Perali - University of Verona, Italy

Liquidity in a Limit Order Book Foreign Exchange Trading System Robert Hillman - City University Business School, UK Ian W. Marsh - City University Business School, UK Mark Salmon - City University Business School, UK

Discussant: Diderik Lund - University of Oslo, Norway

**PPP and The Real Exchange Rate-Real Interest Rate Differential Puzzle Revisited: Evidence from Nonstationary Panel Data** Georgios E. Chortareas - Bank of England, UK Rebecca L. Driver - Bank of England, UK

Discussant: Russell Poskitt - UNITEC, New Zealand

## Monday 10:15-11:45

## **SESSION 8 CORPORATE TAKEOVERS I**

Room 1

Room 2

Session Chair: Paul Halpern - University of Toronto, Canada

#### The Impact of Intangible Assets and Financial Distress on Acquisition Probability and Price

Thomas Astebro - University of Waterloo, Canada Marc Johannsen - Technical University of Hamberg-Harburg, Germany Alexandra E. MacKay - University of Toronto, Canada

Discussant: Elaine Hutson - Dublin City University Business School, Ireland

### Share Ownership and Company Structure, Takeover Characteristics and Takeover Bid **Success or Failure**

Darren Henry - La Trobe University, Australia

Discussant: Robin Limmack - University of Stirling, UK

The Illusory Protections of the Poison Pill: Analysis and Cures William J. Carney - Emory University Leonard A. Silverstein - Long, Aldridge & Norman, LLP

Discussant: Nelson Lacey - University of Massachusetts

#### **SESSION 9** SKEWNESS, KURTOSIS, AND OPTION PRICING Session Chair: Charles Corrado - University of Auckland, New Zealand

#### Explaining Smiles: GARCH Option Pricing with Conditional Leptokurtosis and Skewness

Thorsten Lehnert - Maastricht University, The Netherlands

Discussant: Henrik Amilon - Lund University, Sweden

#### Skewness and Kurtosis in Financial Data and the Pricing of Options Panayiotis Theodossiou - Rutgers University

Discussant: Carol Alexander - University of Reading, UK

#### Unrealized Expectations of Jumps in Volatility: An Explanation to the Low and Time-Varying Predictive Power of Implied Volatility

Aku Penttinen - Swedish School of Economics and Business Administration, Finland, and New

York University, U.S.A.

Discussant: Robert Tompkins - University of Technology, Vienna, Austria

#### SESSION 10

CANADIAN EMPIRICAL FINANCE ISSUES

Session Chair: Lawrence Kryzanowski - Concordia University, Canada

Market Response to Announcements of Mergers of Canadian Financial Institutions Sebouh Aintablian - American University of Beirut, Lebanon Gordon S. Roberts - York University, Canada

Discussant: Nickolaos Travlos - ALBA, Greece, and Cardiff Business School, UK

#### Foreign Exchange Risk Exposure of Canadian Domestic and Multinational Firms: Market vs. Industry Effects Lorne N. Switzer - Concordia University, Canada

Mourad M. Jeddi - Concordia University, Canada

Discussant: Julia Sawicki - Nanyang University, Singapore

#### An Empirical Analysis of Canadian Seasoned Equity Offerings

Lawrence Kryzanowski - Concordia University, Canada Ian Rakita - Concordia University, Canada

Discussant: Alasdair Turnbull - Pepperdine University

#### SESSION 11 TOPICS IN INSURANCE Session Chair: Orio Giarini - Geneva Association, Switzerland

**The Role and Perspective of Insurance in the Development of Financial Services: Policy Implications and Issues for a Research Programme** Orio Giarini - Geneva Association, Switzerland

Discussant: Francesco Paris - University of Brescia, Italy

**Developing Rainfall Based Index Insurance in a Developing Country** Jerry Skees - University of Kentucky Stephanie Gober - World Bank Panos Varangis - World Bank Rodney Lester - World Bank Vijay Kalavakonda - World Bank

Discussant: George Tsetsekos - Drexel University

Organizational Structure and Performance: Evidence From the Non-Life Insurance Industry in Japan

Room 4

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Gene C. Lai - Washington State University Piman Limpaphayom - Asian University of Science and Technology, Thailand

*Discussant*: Stavros Zenios - University of Cyprus, Cyprus, and The Wharton School, University of Pennsylvania

### SESSION 12 DIVERSIFICATION AND PORTFOLIO ISSUES

Session Chair: Gikas Hardouvelis - Office of the Prime Minister, Greece

## Determinants of International Portfolio Investment Flows to a Small Market: Empirical Evidence

Eva Liljeblom - Swedish School of Economics and Business Administration, Finland Andres Loflund - Swedish School of Economics and Business Administration, Finland

Discussant: Sanjiv Das - Santa Clara University

## Dynamic Portfolio Selection: The Relevance of Switching Regimes and Investment Horizon

Birger Nilsson - Lund University, Sweden Andreas Graflund - Lund University, Sweden

Discussant: Bjarne Astrup Jensen - Copenhagen Business School, Denmark

#### Forum Selection in International Business Contracts: A Portfolio Puzzle

Moshe Bar Niv (Burnovski) - The Interdisciplinary Center Herzlia and Bar Ilan University, Israel

David Feldman - Ben-Gurion University of the Negev and Techion-Israel Institute of Technology, Israel

Discussant: Stanislav Uryasev - University of Florida

#### The Three-Moment CAPM: Theoretical Foundations and an Asset Pricing Models Comparison in an Unified Framework Emmanuel Jurczenko - University of Paris, France Bertrand Maillet - University of Paris, France

Discussant: Sebastien Galy - Concordia University, Canada

### SESSION 13

#### **EXCHANGE RATES PREMIA AND HEDGING** Session Chair: Edgar Ortiz - UNAM, Mexico

**Trading in the Australian Foreign Exchange Market** Tiffany Hutcheson - University of Technology, Australia

Discussant: Henry Y.K. Yip - University of New South Wales, Australia

## Exploring the Benefits of International Diversification and Currency Hedging for International Fund Portfolios

Stephanos Papadamou - University of Macedonia, Greece Stavros Tsopoglou - University of Macedonia, Greece Room 6

Discussant: Danilo Mercurio - Humboldt University, Germany

# The Cross-Currency Hedging Performance of Implied Versus Statistical Forecasting Models

Chris Brooks - University of Reading, UK James Chong - University of Reading, UK

Discussant: Wei Li - Hong Kong Polytechnic University, Hong Kong

#### A Re-Examination of the Predicting Power of Forward Premia Peijie Wang - UMIST, UK

Discussant: Wim Westerman - University of Groningen, The Netherlands

#### SESSION 14 MULTINATIONAL AND INVESTMENT BANKING Session Chair: George Papaioannou - Hofstra University

An Assessment of the Value of Brokerage Information for the Individual Investor J.H. Hall - University of Pretoria, Republic of South Africa S. Millard - University of Pretoria, Republic of South Africa

Discussant: Michel Henry Bouchet - CERAM, France

#### External Financing Costs and Economies of Scale in Investment Banking - The Case of Seasoned Equity Offerings in Germany Thomas Buhner - University of Fribourg, Germany Christoph Kaserer - University of Fribourg, Germany

Discussant: Arnold R. Cowan - Iowa State University

#### The Pricing of Investment Banking Services: The Case of Standby Underwritten Convertible Calls Arnold R. Cowan - Iowa State University Nandkumar Nayar - University of Oklahoma

Ajai K. Singh - Case Western Reserve University

Discussant: Laurence Booth - University of Toronto, Canada

## Monday 1:45-3:15

#### SESSION 15 CORPORATE TAKEOVERS II Session Chair: William Carney - Emory University

## Explaining Returns to Cash Bids: Tests of the Free-Cash-Flow and Market Impressions Hypotheses

Raymond da Silva Rosa - University of Sydney, Australia Robin Limmack - University of Stirling, UK Sharon Siew - University of Western Australia, Australia David Woodliff - University of Western Australia, Australia

Discussant: Alexandra MacKay - University of Toronto, Canada

#### Market Reaction of Mergers and Acquisitions in the Athens Stock Exchange Katerina Lyroudi - University of Macedonia, Greece Demetres Subeniotis - University of Macedonia, Greece Thomas Hagigayos - University of Macedonia, Greece

Discussant: Z. Nuray Guner - Middle East Technical University, Turkey

**Stock Price Interaction Between Bidding and Target Companies During Takeover Bids** Elaine Hutson - Dublin City University, Ireland

Discussant: António Câmara - University of Strathclyde, UK

#### **Family Control and Grouping: Possible Expropriation Via Dividends** Yoser Gadhoum - University of Quebec in Montreal, Canada

Discussant: Emmanuel Tsiritakis - University of Pireaus, Greece

#### SESSION 16

MATHEMATICAL FINANCE Session Chair: Andrea Gamba - University of Verona, Italy

**Theory and Calibration of HJM with Shape Factors** Andrea Roncoroni - ESSEC Business School and University of Paris Dauphine, France Paolo Guiotto - University of Padova, Italy

Discussant: Stefano Herzel - University of Perugia, Italy

**Equity Linked Notes Price Behaviour** Alberto Ottaviani - Salomon Smith Barney Room 2

Discussant: Gaurav S. Amin - University of Reading, UK

**The Influence of the Initial Curve on Calibrating An Interest Rate Model** Stefano Herzel - University of Perugia, Italy

Discussant: Eva Liljeblom - Swedish School of Economics and Business Administration, Finland

#### SESSION 17 INTERNATIONAL FIRM Session Chair: Uzi Yaari - Rutgers University

**Taxation, Uncertainty, and the Cost of Equity for a Multinational Firm** Diderik Lund - University of Oslo, Norway

Discussant: Varouj Aivazian - University of Toronto, Canada

**International Corporate Investment and the Role of Financial Constraints** Sean Cleary - Saint Mary's University, Canada

Discussant: Alfred Davis - Queen's University, Canada

**Internationalization of the Finance Function of Finnish Firms** Viveca Sasi - Helsinki School of Economics and Business Administration, Finland

Discussant: Emmanuel Jurczenko - University of Paris, France

#### **SESSION 18**

**STRATEGIC ISSUES IN INTERNATIONAL INVESTMENT** Session Chair: Ephraim Clark - Middlesex University, UK

**The Impact of Political and Economic Events on the Specification of the Pricing Model Described by the Arbitrage Pricing Theory** Costas Michael Stephanou - University of South Africa, South Africa Marius J. Maritz - University of South Africa, South Africa Gawie S. du Toit - University of South Africa, South Africa

Discussant: Esmeralda Lyn - Hofstra University

**Emerging Markets: Investing With Political Risk** Ephraim Clark - Middlesex University, UK Radu Tunaru - Middlesex University, UK

Discussant: Harry Kat - University of Reading, UK

### Governance, Aid Flows and Market Access: A New Challenge for International Financial Institutions

Michel Henry Bouchet - CERAM, France

Room 4

Room 3

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Bertrand Groslambert - CERAM, France

Discussant: Robert Krainer - University of Wisconsin-Madison

**Corporate International Investment Under Incomplete Information** Mondher Bellalah - University of Cergy, France Zhen Wu - Shandong University, China Makram Bellalah - University of Paris-Dauphine and ESSEC School of Management, France

Discussant: Maria Psillaki - LATAPSE-IDEFI-CNRS, France

#### SESSION 19 DUTCH CORPORATE FINANCIAL ISSUES Session Chair: Wim Westerman - University of Groningen, The Netherlands

**Financial Leverage & Business Policy: Evidence from Dutch Management Buy-Outs** Marcel Bonnet - Erasmus University, Holland Hans Bruining - Erasmus University Rotterdam, Holland Albert Corhay - University of Liege, Belgium, and Maastricht University, Holland Arthur C.C. Herst - Open University and Maastricht University, Holland

Discussant: Mehmet Baha Karan - Hasettepe University, Turkey

## The Amsterdam Option Exchange in 1998: How the Supervisory Authorities Turned a Problem Into a Crisis

Adrian Buckley - Cranfield University, UK André Dorsman - University Nyenrode, The Netherlands

Discussant: Rafi Eldor - IDC, Israel

## The Introduction of Share and Option Rewards: The Long-Term Consequences for Newly Public Companies in the Netherlands

J.H. (Henk) von Eije - University of Groningen, The Netherlands A.H. van der Zwaan - University of Groningen, The Netherlands

Discussant: Juan-Francisco Martín-Ugedo - Universidad Politécnica de Cartagena, Spain

#### SESSION 20 MACROECONOMICS AND FINANCE Session Chair: Giovanni Tondini - University of Verona, Italy

#### **Impact of Scheduled Macroeconomic News on Stock Market Uncertainty** Jussi Nikkinen - University of Vaasa, Finland Petri Sahlström - University of Vaasa, Finland

Discussant: Nikolaos Dritsakis - University of Macedonia, Greece

**Production Functions, Money and Methodology** William A. Gibson - University of Lethbridge, Canada Room 6

Room 5

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Shamsul Alam - University of Lethbridge, Canada

Discussant: Marco Corazza - University "Ca' Foscari" of Venice, Italy

#### **Fundamental Market Analysis with Rational Expectations:** A Model for the Corn Market Barbara Bernardi - University of Verona, Italy

Federico Perali - University of Verona, Italy Luca Pieroni - University of Verona, Italy Alessandro Stangalini - University of Verona, Italy

Discussant: Claire G. Gilmore - King's College

#### SESSION 21 USES OF DERIVATIVES Session Chair: Carol Alexander -

Session Chair: Carol Alexander - University of Reading, UK

#### Use of Derivatives by Australian Companies Richard Heaney - Australian National University, Australia

Henry Winata - Perth, Australia

Discussant: Yong H. Kim - University of Cincinnati

### The Determinants of Derivative Use by U.S. and Foreign Banks

Yih-Wen Shyu - Chang Gung University, Taiwan Alan Reichert - Cleveland State University

Discussant: Colm Kearney - Dublin City University Business School, Ireland

#### An Investigation of the Impact of Derivative Use on the Risk and Performance of UK Unit Trusts

Jonathan Fletcher - University of Strathclyde, UK David Forbes - Glasgow Caledonian University, UK Andrew Marshall - University of Strathclyde, UK

Discussant: Jim Musumeci - Southern Illinois University

### Monday 3:30-5:00

#### SESSION 22 INTERNATIONAL FINANCIAL ISSUES Session Chair: Yair Orgler - Tel Aviv University, Israel

#### Monetary Transmission in an Open Economy: The Differential Effect on Exporting and non-Exporting Firms Hedva Ber - Bank of Israel, Israel

Asher Blass - Bank of Israel, Israel Oved Yosha - Tel Aviv University, Israel

Discussant: David Mayes - Bank of Finland, Finland

#### The Price of Forward Contract Illiquidity

Rafi Eldor - The Interdisciplinary Center, Israel Michael Kahn - Bank of Israel, Israel Shmuel Hauser - Ben-Gurion University and Israel Securities Authority, Israel

Discussant: Alireza Tourani-Rad - University of Waikato, New Zealand

**The Capital Structure Choice: Evidence from the Jordanian Corporate Sector** Ghassan Omet - Hashemite University, Jordan

Discussant: Francisco Sogorb-Mira - Universidad Cardenal Herrera, Spain

#### SESSION 23 CALIBRATION IN DERIVATIVES MODELS Session Chair: Harry Kat - University of Reading, UK

**Implied Volatility Surfaces:** Uncovering Regularities for Options on Financial Futures Robert G. Tompkins - Vienna Institute of Technology and Institute for Advanced Studies.

Robert G. Tompkins - Vienna Institute of Technology and Institute for Advanced Studies, Austria

Discussant: Johan Knif - Swedish School of Economics and Business Administration, Finland

#### **On Modelling Credit Risk Using Arbitrage Free Models** Frank S. Skinner - University of Reading, UK Antonio Diaz - Universidad de Castilla, Spain

Discussant: San-Lin Chung - National Central University, Taiwan

**Principal Component Analysis of Volatility Smiles and Skews** Carol O. Alexander - University of Reading, UK Room 2

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Discussant: Charles Corrado - University of Auckland, New Zealand

### SESSION 24

**DUAL LISTING** Session Chair: Eva Liljeblom - Swedish School of Economics and Business Administration, Finland

**Dual-Listing of Australian Shares on the New Zealand Stock Market** Mehdi Sadeghi - Macquarie University, Australia

Discussant: Kevin Davis - University of Strathclyde, UK

#### Network Externalities, Market Quality and Trading Activity

Brian F. Smith - Wilfrid Laurier University, Canada D. Alasdair S. Turnbull - Pepperdine University Robert W. White - University of Western Ontario, Canada

Discussant: Shmuel Hauser - Ben Gurion University, Israel

#### Arbitrage Opportunities in Parallel Markets: The Case of the Czech Republic

Julia Sawicki - Nanyang Technological University, Singapore Jurac Hric - The University of Western Australia, Australia

Discussant: Chris Brooks - University of Reading, UK

### SESSION 25 FINANCIAL ECONOMETRICS

Session Chair: Nicholas Sarantis - London Guildhall University, UK

## Market Timing and Security Selection Skills: A Random Coefficient Model for Greek Mutual Funds

Nikolaos Philippas - University of Pireaus, Greece Efthymios G. Tsionas - Athens University of Economics and Business, Greece

Discussant: Michael McKenzie - RMIT University, Australia

Accurate Forecasting for High Frequency Financial Variables Javier Perote - Universidad de Salamanca, Spain Esther del Brío - Universidad de Salamanca, Spain

Discussant: Demosthenes Tambakis - Pembroke College, UK

#### **Empirical Issues in Value-at-Risk**

Dennis Bams - ING Group Amsterdam and LIFE, Maastricht University, The Netherlands Jacco L. Wielhouwer - ING Bank Amsterdam and CentER, Tilburg University, The Netherlands

Room 4

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Discussant: Michalis Ioannides - Rutgers University

#### SESSION 26 NEW ZEALAND FINANCIAL ISSUES Session Chair: Colm Kearney - Dublin City University Business School, Ireland

## An Intraday Test of Pricing & Arbitrage Opportunities in the New Zealand Bank Bill Futures Market

Russell N. Poskitt - UNITEC Institute of Technology, New Zealand

Discussant: Gerard Gannon - University of Melbourne, Australia

#### Stakeholder Conflict: The Case of Trusts

David Emanuel - University of Auckland, New Zealand Tony van Zijl - Victoria University of Wellington, New Zealand

Discussant: Paul Grout - University of Bristol, UK

#### Geared Equity Investment Contracts: A Case Study in Financial Engineering

Charles Corrado - University of Auckland, New Zealand Joe Cheung - University of Auckland, New Zealand

Discussant: Robert W. Faff - Royal Melbourne Institute of Technology (RMIT), Australia

#### SESSION 27 EMPIRICAL FINANCE ISSUES Session Chair: Hans Dewachter - Catholic University of Leuven, Belgium

A Credit Risk Model for a Valuation of Convertible Bonds: A Proposal Peter Carayannopoulos - Wilfrid Laurier University, Canada Madhu Kalimipalli - Wilfrid Laurier University, Canada

Discussant: Söhnke M. Bartram - Maastricht University, The Netherlands

**Time-Varying Default Risk Premiums in the Eurodollar Deposit Market** Yue Li - University of Toronto, Canada Steven Shuye Wang - Hong Kong Polytechnic University, Hong Kong David G. Wei - TD Securities, Canada

Discussant: Sean Pinder - University of Melbourne, Australia

#### Market Microstructure and Market Illiquidity: An Empirical Test Huu Minh Mai - French Stock Exchange, France Magali E. Zuanon - Catholic University of Milan, Italy, and University Paris, France

Discussant: Alberto Ottaviani - Salomon Smith Barney

Room 6

### Tuesday 8:30-10:00

#### SESSION 28 DIVIDEND POLICY AND RETURNS

Room 1

Session Chair: Lars Oxelheim - Lund University and IUI, Sweden

**Dividend Policy in Developing Countries** Varouj Aivazian - University of Toronto, Canada Laurence Booth - University of Toronto, Canada Sean Cleary - Saint Mary's University, Canada

Discussant: Uzi Yaari - Rutgers University

**The Ex-Dividend Day Price Behavior in the Athens Stock Exchange** Nikolaos T. Milonas - University of Athens, Greece Nickolaos G. Travlos - ALBA, Greece, and Cardiff Business School, UK

Discussant: Beni Lauterbach - Bar-Ilan University, Israel

**Dividend Protection at a Price: Lessons From Endowment Warrants** Christine Brown - University of Strathclyde, UK Kevin Davis - University of Strathclyde, UK

Discussant: André Dorsman - University Nyenrode, The Netherlands

Signalling Through Dividend Announcements in the Absence of Differential Taxation in Emerging Markets. The Case of the Athens Stock Exchange (ASE) Nickolaos Tsangarakis - University of Pireaus, Greece Emanuel Tsiritakis - University of Pireaus, Greece

Discussant: Yoser Gadhoum - University of Quebec in Montreal, Canada

#### SESSION 29

Room 2

**ALTERNATIVE INVESTMENTS** Session Chair: Francesco Paris - University of Brescia, Italy

#### **MultiFractality in Foreign Currency Markets**

Marco Corazza - University "Ca' Foscari" of Venice, Italy Anastasios G. Malliaris - Loyola University of Chicago

Discussant: Minh-Chau To - Ecole des HEC, Canada

**The Role of Financial Instruments in Integrated Catastrophic Flood Management** Tatiana Ermolieva - International Institute for Applied Systems Analysis, Austria Yuri Ermoliev - International Institute for Applied Systems Analysis, Austria

Discussant: Paolo Falbo - University of Brescia, Italy

Detection of Asymmetry and Estimation of Discrete-Time Stochastic Volatility Models

#### for Some Asset Returns

Orietta Nicolis - University of Verona, Italy Giovanni Tondini - University of Verona, Italy

Discussant: Hedva Ber - Bank of Israel, Israel

## SESSION 30 EMERGING MARKETS

Session Chair: Rafael Eldor - IDC, Israel

#### **The Effect of Information on Intra-Day Stock Returns in Chile: The Case of an Emerging Market** Franco Parisi - University of Chile, Chile

Ximena Besnier - University of Chile, Chile

Discussant: Francis Cai - William Paterson University of New Jersey

#### Time Diversification Among Swedish Assets

Björn Hansson - Lund University, Sweden Mattias Persson - Lund University, Sweden

Discussant: Kate Phylaktis - City University Business School, UK

#### Share Value, Trading Volume and Location of Trade: Evidence from Jardine Group Listings in Hong Kong and Singapore Sie Ting Lau - Nanyang Technological University, Singapore

Thomas H. McInish - University of Memphis

Discussant: George Papaioannou - Hofstra University

## The Impact of the Futures Market's Introduction, On the Conditional Volatility of the Portuguese Stock Market

Benilde Maria do Nascimento Oliveira - University of Minho, Portugal Manuel José da Rocha Armada - University of Minho, Portugal

Discussant: Javier Perote - University of Salamanca, Spain

## SESSION 31 TRADING OF SECURITIES

Session Chair: Jeffrey Callen - University of Toronto, Canada

### On Asset Pricing and the Bid-Ask Spread

Gady Jacoby - University of Manitoba, Canada Aron A. Gottesman - Concordia University, Canada David J. Fowler - York University, Canada

Discussant: Costas Stephanou - University of South Africa, South Africa

#### Returns and Volatility at the Open: An Empirical Analysis of NYSE Specialists

Room 4

Alexandra Bertie - University of New South Wales, Australia David Michayluk - University of New South Wales, Australia Li-Anne Woo - University of New South Wales, Australia

Discussant: Gary Gang Tian - University of Western Sydney, Australia

#### A Cross-Market Trade-Indicator Spread Model For Stocks

Henry Y.K. Yip - University of New South Wales, Australia

Discussant: Turalay Kenc - University of Manchester, UK

#### SESSION 32

#### **EFFICIENCY IN CANADIAN CAPITAL MARKETS**

Session Chair: George Athanassakos - Wilfrid Laurier University, Canada

A Cross-Country Comparison of Full and Partial Venture Capital Exit Strategies Douglas J. Cumming - University of Alberta, Canada Jeffrey G. MacIntosh - University of Toronto, Canada

Discussant: Paul Halpern - University of Toronto, Canada

## Capital Market Integration and Industrial Structure: The Case of Australia, Canada and the United States

Robert W. Faff - Royal Melbourne Institute of Technology (RMIT), Australia Usha R. Mittoo - University of Manitoba, Canada

Discussant: Madhu Kalimipalli - Wilfrid Laurier University, Canada

## The Scrutinized-Firm Effect, Portfolio Rebalancing, and the Pervasiness of the January Effect in Canada

George Athanassakos - Wilfrid Laurier University, Canada

Discussant: Sean Cleary - Saint Mary's University, Canada

### SESSION 33 EXCHANGE RATES

Session Chair: Alan Reichert - Cleveland State University

Is Australasia, North and Southeast Asia Becoming a Yen Bloc? Colm Kearney - Dublin City University, Ireland

Discussant: Axel F.A. Adam-Müller - University of Konstanz, Germany

#### Monetary Policy Rules in New Zealand 1989-1998 Angela Huang -Dimitri Margaritis - University of Waikato, New Zealand

Room 6

David Mayes - Bank of Finland, Finland

Discussant: Arav S. Ouandlous - Savannah State University

When Will a Cross Hedge Work? Jim Musumeci - Southern Illinois University

Discussant: Joelle Miffre - City University Business School, UK

SESSION 34 CORPORATE GOVERNANCE II

Session Chair: George Tsetsekos - Drexel University

# Corporate Governance and Business Cycles in the G-7 Countries: Do Institutions Really Matter?

Robert E. Krainer - University of Wisconsin - Madison

*Discussant*: Gikas Hardouvelis - University of Pireaus and Office of the Prime Minister, Greece

#### **Financial Convergence and Financial Governance**

Lewis D. Johnson - Queen's University, Canada Edwin H. Neave - Queen's University, Canada

Discussant: Ephraim Clark - Middlesex University, UK

#### Corporate Ethics and Shareholder Wealth: Does It Pay to Be Green?

Donald R. Chambers - Lafayette College Nelson J. Lacey - University of Massachusetts at Amherst Mark Potter - Babson College

Discussant: Edgar Ortiz - UNAM, Mexico

#### Corporate Governance, Firm Performance and Agency Conflicts in Closely-Held Firms: Evidence from Hong Kong

Zhilan Chen - Zhenzhen Stock Exchange, China Yan-Leung Cheung - City University of Hong Kong, Hong Kong Aris Stouraitis - City University of Hong Kong, Hong Kong

Discussant: Darren Henry - La Trobe University, Australia

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## Tuesday 10:15-11:45

#### SESSION 35 PUBLIC OFFERINGS I Session Chair: Yong H. Kim - University of Cincinnati

#### Information Content of Seasoned Equity Offerings

Nuray Güner - Middle East Technical University, Turkey Zeynep Önder - Bilkent University Seza Danişoğlu Rhoades - Middle East Technical University, Turkey

Discussant: Piero Del Monte - Cazenove & Co., Italy

## Does Issuing Stock Index Linked Debt Create Shareholder Value? Evidence from the Paris Bourse

Gordon S. Roberts - York University, Canada Vasumathi Vijayraghavan - University of Paris-Dauphine, France Sebouh Aintablian - American University, Lebanon

Discussant: Ephraim Clark - Middlesex University, UK

**The Handover, Market Correction and the New Issues Market in Hong Kong** Peter Carey - Monash University, Australia Petko Kalev - Monash University, Australia Adam Steen - Monash University, Australia Catherine Ng Kar Wing - Monash University, Australia

Discussant: Seung Doo Choi - Dong-eui University, Korea

#### **The Long-Run Performance Following Spanish Rights Issues** María Jesús Pastor-Llorca - Universidad de Alicante, Spain Juan Francisco Martín-Ugedo - Universidad Politécnica de Cartagena, Spain

Discussant: Stefanos Papadamou - University of Macedonia, Greece

#### SESSION 36

### ASSET LIABILITY AND BOND PRICING

Session Chair: A.G. Malliaris - Loyola University of Chicago

#### Scenario Optimization Asset and Liability Modeling for Endowments with Guarantees Andrea Consiglio - University of Calabria, Italy Flavio Cocco - University of Calcolo, Italy Stavros A. Zenios - University of Cyprus, Cyprus, and The Wharton School, University of Pennsylvania

Discussant: A.G. Malliaris - Loyola University of Chicago

Room 2

#### An Affine Model for International Bond Markets

Hans Dewachter - Catholic University of Leuven, Belgium Konstantijn Maes - Catholic University of Leuven, Belgium

*Discussant*: Andres Loflund - Swedish School of Economics and Business Administration, Finland

#### Pricing Bond Options with the Semi-Langrange Time Integration Scheme

M.A. Gulamhusen - The University of Reading, UK Michalis Ioannides - Rutgers University K. Singh - Natwest Bank, UK

Discussant: Gady Jacoby - University of Manitoba, Canada

#### SESSION 37 FINANCIAL ECONOMETRICS ISSUES Session Chair: Shmuel Hauser - Ben Gurion University, Israel

**The Determinants of Conditional Autocorrelation in Stock Returns** Michael D. McKenzie - RMIT University, Australia Robert W. Faff - RMIT University, Australia

Discussant: Nicholas Sarantis - London Guildhall University, UK

#### Further Evidence on the Predictability of UK Stock Returns

David Lovatt - University of East Anglia, UK Andrew Boswell - University of East Anglia, UK Reza Noor - University of East Anglia, UK

Discussant: Nikolaos Philippas - University of Pireaus, Greece

## **Dynamic Linkages of Interest Rates Within EMS: Implications for the 'German Dominance' Hypothesis and Monetary Policy** Nikiforos T. Laopodis - Villa Julie College

Discussant: Georgios E. Chortareas - Bank of England, UK

#### SESSION 38 MUTUAL AND HEDGE FUNDS

Session Chair: Swaminathan Sankaran - University of Regina, Canada

## Greek Closed-End Fund Premia: Differences and Similarities with U.S. Premia and Their Implications

Gikas A. Hardouvelis - University of Pireaus and Office of the Prime Minister, Greece Emmanuel D. Tsiritakis - University of Pireaus, Greece

Room 3

Discussant: Lawrence Kryzanowski - Concordia University, Canada

Explaining Covariances of Swedish Equity Returns: A Risk Management Perspective Hossein Asgharian - Lund University, Sweden Björn Hansson - Lund University, Sweden

Discussant: John Henry Hall - University of Pretoria, Republic of South Africa

Hedge Fund Performance 1990-2000. Do the 'Money Machines' Really Add Value? Gaurav S. Amin - University of Reading, UK Harry M. Kat - University of Reading, UK

Discussant: Manuel José da Rocha Armada - University of Minho, Portugal

#### SESSION 39 VALUATION

Session Chair: Varouj Aivazian - University of Toronto, Canada

## The Impact of Commodity Price Risk on Firm Value

Söhnke M. Bartram - Maastricht University, The Netherlands

Discussant: Douglas Cumming - University of Alberta, Canada

Yahoo! for Amazon: Sentiment Parsing from Small Talk on the Web Sanjiv R. Das - Santa Clara University Mike Y. Chen - University of California at Berkeley

Discussant: Chris Brooks - University of Reading, UK

**Recognizing Macroeconomic Fluctuations in Value Based Management** Lars Oxelheim - Lund University and IUI, Sweden Clas Wihlborg - Copenhagen Business School, Denmark, and Göteborg University, Sweden

Discussant: Frank S. Skinner - University of Reading, UK

**On Capital Structure in the Small and Medium Enterprises: The Spanish Case** Francisco Sogorb-Mira - Universidad Cardenal Herrera, Spain

Discussant: George Athanassakos - Wilfrid Laurier University, Canada

SESSION 40 EMERGING MARKET ISSUES Session Chair: Lewis Johnson - Queen's University, Canada Room 6

Maintaining Stability in the Emerging Markets: A Comparative Study of the Three

#### **Financial Crises** Weiping Liu - University of Wisconsin Tianyou Hu - University of Wisconsin

Discussant: Mikael Vikström - Estlander & Rönnlund Financial Products Ltd., Finland Liquidity and Volatility: Lessons from Price Bubbles and Market Crashes in Southeaster Asia James S. Ang - Florida State University Alireza Tourani-Rad - University of Waikato, New Zealand Jean C. Yu - Florida State University

Discussant: Li-Anne Woo - University of New South Wales

Size and Book-to-Market Factors and the Predictability of Australian Industry Returns Aidan Allen - Curtin University of Technology, Australia Lakshman Alles - Curtin University of Technology, Australia

*Discussant*: Dimitrios Kousenidis - Technological Education Institution of Thessaloniki, Greece

#### **SESSION 41**

Room 7

ASIAN FINANCIAL ISSUES Session Chair: Piman Limpaphayom - Asian University of Science and Technology, Thailand

# The Source of FDI as a Determinant of Economic Growth: Evidence from Japanese and U.S. FDI in Emerging Markets

Wi Saeng Kim - Hofstra University Esmeralda Lyn - Hofstra University Edward Zychowicz - Hofstra University

Discussant: Shamsul Alam - University of Lethbridge, Canada

**The Impact of the Japanese Yen and the Equity Markets of U.S. and Japan on the Emerging Asian Equity Markets** Yang Liu - City University of Hong Kong, Hong Kong

Discussant: Sanja Grubacic - University of New Haven

**Corporate Size and Changes in Japanese Corporate Financing** Arav S. Ouandlous - Savannah State University William A. Dowling - Savannah State University

Discussant: Aris Stouraitis - City University of Hong Kong, Hong Kong

### Tuesday 1:45-3:15

#### SESSION 42 PUBLIC OFFERINGS II Session Chair: Gordon Roberts - York University, Canada

## The Impact of Price Limits on Initial Public Offerings: Evidence from the Taiwan Stock Exchange

Yong H. Kim - University of Cincinnati Jimmy J. Yang - University of Cincinnati

Discussant: Yair Orgler - Tel Aviv University, Israel

#### After Listing Performance IPOs. Does Deliberate Underpricing Exists? Piero Del Monte - Cazenove & Co, Italy

Discussant: Vasumathi Vijayraghavan - University of Paris-Dayphine, France

#### **Do Privatization IPOs Outperform the Market? An International Evidence** Seung-Doo Choi - Dong-Eui University, Korea

Sang-Koo Nam - Korea University, Korea

Discussant: Zeynep Önder - Bilkent University, Turkey

#### How Competition Corrects IPO Mispricing: Fixed Price vs. Auction

Shmuel Hauser - Ben-Gurion University of Negev and Israel Securities Authority, Israel Uzi Yaari - Rutgers University Yael Tanchuma - Israel Securities Authority, Israel Harold Baker - Israel Securities Authority, Israel

Discussant: Lorne Switzer - Concordia University, Canada

#### SESSION 43 HEDGING FINANCIAL RISK Session Chair: Laurence Booth - University of Toronto, Canada

**Risk Minimization and Trading Performance of Dynamic Hedging Models: Time Varying Covariance and Volatility Transmission Effects** Michael Chng - University of Melbourne, Australia Gerard Gannon - University of Melbourne, Australia

Discussant: Jonathan Fletcher - University of Strathclyde, UK

#### **GMM Esitmation of Minimum Variance Hedge Ratios**

Room 2

Joelle Miffre - City University Business School, UK

Discussant: Richard Heaney - Australian National University, Australia Dynamic Optimal Futures Hedging With Jump Risk and Stochastic Interest Rates Nabil Chahdoura - Banque Nationale du Canada, Canada Minh-Chau To - Ècole des Hautes Ètudes Commerciales, Canada Pierre Laroche - Ècole des Hautes Ètudes Commerciales, Canada

Discussant: Tatiana Ermolieva - International Institute for Applied Systems Analysis, Austria

#### **SESSION 44**

#### CORPORATE AND FINANCIAL ACCOUNTING ISSUES Session Chair: Toni van Zijl - Victoria University of Wellington, New Zealand

### Corporate Leverage and Unanticipated Industry Growth: A Test of the Myers Conjecture

Varouj A. Aivazian - University of Toronto, Canada Jeffrey L. Callen - University of Toronto, Canada David S. Gelb - Seton Hall University

Discussant: Thomas McInish - University of Memphis

#### Value Relevance of Earnings and Income Smoothing: Greek Evidence on Causality Effects

Dimitrios Kousenidis - Technological Educational Institution of Thessaloniki, Greece Christos Negakis - Aristotle's University of Thessaloniki, Greece Ioannis Papanastasiou - University of Macedonia, Greece

Discussant: Gülnur Muradoğlu - University of Manchester, UK

#### The Adjustment of Earnings Forecasts to Information Inferred from Stock Announcements

George Tsetsekos - Drexel University Sam Szewczyk - Drexel University Wei-Ling Song - Drexel University

Discussant: Jeffrey Callen - University of Toronto, Canada

A New WACC with Losses Carried Forward for Firm Valuation Ignacio Vélez-Pareja - Politecnico GranColombiano, Colombia Joseph Tham - Ho Chi Minh City, Vietnam

Discussant: Mondher Bellalah - University of Cergy, France

**SESSION 45** INTERNATIONAL INVESTMENT Session Chair: Robert W. Faff - Royal Melbourne Institute of Technology (RMIT), Australia

An Empirical Examination of the Impact of Foreign Listing On the Returns and Systematic Risk of Equity Securities

Sean M. Pinder - University of Melbourne, Australia

Room 3
Benjamin M. Barry - Macquarie Bank, Australia Stephen A. Easton - University of Newcastle, Australia

Discussant: Petko Kalev - Monash University, Australia

Successful Business Development Strategies For Canadian Corporations: The Role of Intangible Assets in International Markets Catherine Beauchemin - National Bank Financial, Canada Alfred H.R. Davis - Queen's University, Canada

Discussant: Usha R. Mittoo - University of Manitoba, Canada

**Country Funds: A Channel for Emerging Equity Markets Integration** Kate Phylaktis - City University Business School, UK Fabiola Ravazzolo - City University Business School, UK

Discussant: Lewis Johnson - Queen's University, Canada

#### SESSION 46 TRADING RULES

Session Chair: Robert Krainer - University of Wisconsin-Madison

#### Is the 'Perfect' Timing Strategy Truly Perfect?

Kin Lam - Hong Kong Baptist University, Hong Kong Wei Li - Hong Kong Polytechnic University, Hong Kong

Discussant: Roger Otten - Maastricht University, The Netherlands

**The Trading Profitability of Forecasts of the Gilt-Equity Yield Ratio** Chris Brooks - University of Reading, UK Gita Persand - University of Reading, UK

Discussant: Ian Marsh - City University Business School, UK

# Market Efficiency and the Returns to Simple Technical Trading Rules: New Evidence from US Equity Index

Gary Gang Tian - University of Western Sydney, Australia Guo Mingyuan - University of Western Sydney, Australia

Discussant: Anna Zalewska-Mitura - Maastricht University, The Netherlands

#### SESSION 47

**EXCHANGE RATE BEHAVIOR** Session Chair: Johan Knif - Swedish School of Economics and Business Administration, Finland

What to Do If a Dollar is Not a Dollar? The Impact of Inflation Risk on Production and

Room 5

Room 6

#### **Risk Management**

Axel F.A. Adam-Müller - University of Konstanz, Germany

Discussant: Kivilcim Metin Ozcan - Bilkent University, Turkey

#### **Cross-Correlations in FX Returns**

Giorgio S. Questa - City University Business School, UK Demosthenes N. Tambakis - University of Cambridge, UK

Discussant: Nikiforos Laopodis - Fairfield University

#### **Exchange Rate Management in Eastern Europe**

Zeljan Suster - University of New Haven Sanja Grubacic - University of New Haven

Discussant: Orietta Nicolis - University of Verona, Italy

SESSION 48 MARKET EFFICIENCY

Session Chair: Esmeralda Lyn - Hofstra University

#### **Efficiency Tests of the London Options Market**

Christos Grose - University of Birmingham, UK, and University of Macedonia, Greece Nikolaos Dritsakis - University of Macedonia, Greece

Discussant: Esther del Brío - University of Salamanca, Spain

#### **Debt Marketability and Efficiency**

William Perraudin - Birkbeck College, Bank of England, and CEPR, UK Maria Psillaki - LATAPSES-IDEFI-CNRS, France

Discussant: Hans Dewachter - Catholic University of Leuven, Belgium

**Random-Walk and Efficiency Tests of Central European Equity Markets** Claire G. Gilmore - King's College Ginette M. McManus - Saint Joseph's University

Discussant: Petri Sahlström - University of Vaasa, Finland

Room 7

# Tuesday 3:30-5:30

#### PANEL SESSION

Room 1

# CONSOLIDATION PROBLEMS IN THE FINANCIAL SERVICES INDUSTRY IN EUROPE

Session Chair: Francesco Spinelli - University of Brescia, Italy

**Structural Evolution of the Banking System** Giorgio Szego - University of Rome "La Sapienza", Italy

Mergers and Acquisition in the European Banking Sector: The Problem of Equity Management

Jyoti Gupta - ESCP-EAP Paris, France

Consolidation Trends in the European Financial Services Sector: What Makes the Difference?

Jaap Spronk - Erasmus University, Rotterdam, The Netherlands

Worldwide Collaboration Among Stock Exchanges Yair E. Orgler - Tel-Aviv Stock Exchange, Israel

**The Growing Role of Insurance in the Financial Services Consolidation in Europe** Orio Giarini - Geneva Association, Switzerland

**M&A and Value Creation in the Banking Industry** Antonio Guglielmi - Merril Lynch Equity Research, Milan, Italy

# **CONFERENCE PARTICIPANTS**

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# A Compound-Option Model for the Valuation of the Manager's Incentive Fee and its Impact on the Manager's Adverse Incentive

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The shareholder-manager relationship in a firm traditionally raises a conflict of interests whose solution is costly and the costs, referred to as agency costs, are incurred by the shareholder. Among many possible devices aimed to solve the aforementioned conflict, we concentrate on those related to the manager's compensation, in particular on the accounting-based bonus, otherwise known as incentive fee. Margrabe [1978] originally showed that an incentive fee can be priced as a call exchange option written on the realized manager's performance with respect to a benchmark assumed to be the strike price of the option itself. Kritzman-Rich [1998], with respect to an investment-manager, show that the Margrabe's model implies an adverse incentive for the manager to arbitrarily increase the risk of the investment portfolio; such an incentive can be substantially reduced by modelling the incentive fee as a multicontingency option accounting for a relative and an absolute performance measure at the same time. We extend the Kritzman-Rich model to the case of a firm-manager and propose to transform it into a compound option model in order to adequately account for the option-like feature of the firm-capital, assumed to be our performance parameter. Our model allows for a separate analysis of the shareholder's and manager's incentives. We implement numerical simulations unambiguously showing that even a multiconditional incentive fee is unable to solve completely the shareholder-manager conflict of interests (JEL G13, G31, G32).

**Keywords:** compound option, down and out call option, multicontingency option, incentive fees, moral hazard.

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### Hedging Options with Different Time Units in the Pricing Models

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This study examines the effects of the Greeks of the options and the hedging performance of three different time units or option-pricing models. These time units are calendar time, trading time and continuous time using discrete approximation (CTDA) time. The CTDA time model is a pricing model, that among others accounts for intraday and weekend, patterns in volatility. For the CTDA time model some additional theta measures are developed. The study appears to verify that there were differences in the Greeks with different time units. There is also clear evidence that the CTDA time model is superior to the more traditional trading and calendar time models in terms of hedging effectiveness. The CTDA time model had the lowest variance of the hedged returns and these results ought to hold even when transactions costs are taken into account (JEL G13, G12).

**Keywords:** option pricing, hedging effectiveness, intraday option pricing, trading time, calendar time.

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# Pricing Index Options with Stochastic Volatility on the Efficiency of the Square Root Model

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The objective of this paper is to investigate the pricing accuracy under stochastic volatility where the volatility follows a square root process. The theoretical prices are compared with market price data by using two different techniques of parameter estimation, the method of moments and implicit estimation by inversion. Standard Black & Scholes prices are used for benchmarking purposes. The results indicate that the stochastic volatility model with parameters estimated by inversion using the available prices on the preceding day, is the most accurate pricing method of the three in this study and can be considered well above satisfactory. However, as the same model with parameters estimated using a rolling window (the method of moments) proved to be inferior to the benchmark, the importance of stable and correct estimation of the parameters is evident (JEL G13, C61).

**Keywords:** option pricing, parameter estimation, stochastic volatility, volatility smiles.

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## Monte Carlo Estimations of Greeks

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This paper proposes a method terms Monte Carlo with Black Scholes (MCBS) method to calculate the hedge ratios (Greeks) of options. We show that the MCBS Greeks are not only more accurate but also have smaller standard deviations when compared to the usual Monte Carlo method (JEL C15, G13).

**Keywords:** Monte Carlo simulation, options, Black and Scholes formula, hedge parameters.

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# A Simple Variable to Forecast a Firm's Operating Performance and Its Stock Returns

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This paper investigates the usefulness of the past operating performance of a firm in predicting its future financial performance and stock returns. The paper introduces a simple variable to measure the operating performance of a firm. The paper proposes a hypothesis that the poor operating performance tends to be persistent. We analyze and test the hypothesis by using the data on 2000 Compustat and found that there is a strong persistence in poor operating performance. Simple regression analyses show that the past poor operating performance almost completely explains the variations of the likelihood of current occurrence of poor performance.

The paper then links the stock return of a firm to its past operating performance. The test results on both annual and quarterly data in COMPUSTAT indicate that the history of operating performance can explain up to 70% of the variations of stock returns. The good firms (defined as the firms having good past operating performance) produce higher stock returns than bad firms (defined as the firms having bad past operating performance). The past operating performance is a good indicator for the stock performance for the period up to 3 quarters in the future (JEL G30, G14, G33).

**Keywords:** stock returns, operating performance, market efficiency, return predictability.

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## An Evaluation of Good Corporate Governance Practices in Brazil

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This study has the objective to assemble information related to Brazilian boards and to point out what prevents good corporate governance practices given the specificities of our market and companies. This paper contains a literature review of current Brazilian board practices. Diffuse corporate ownership is insignificantly in Brazil. As a result of such concentration of ownership and control, the relevant agency problem occurs between majority and minority shareholders. In our analysis of Brazilian boards, we reviewed three main studies. The first study by the IBGC (Brazilian Institute of Corporate Governance) from 1998 used the same research model developed by the US NACD in 1995. The second study by the consulting Spencer Stuart (1999) involved 92 of the 500 largest companies listed in the "Exame" magazine (the most important Brazilian business magazine). The third study was made by the LCV consulting firm (VENTURA, 2000) with 75% of the total listed companies using the data from CVM (the Brazilian SEC). We realize that Brazilian highly concentrated ownership and weak legal protection of investor's rights renders its reality different from that in the US, U.K., Japan or Germany. In Brazil the investment necessary to control companies is low and the risk of expropriation by controlling shareholders is high due to the weak enforcement of corporate law. However, legal experts consider that these laws would not prevent the development of good corporate governance practices. Brazilian research on this topic is scarce because interest in the topic in Brazil is very recent. However, companies were required to have boards in 1976 and to this date we find a majority of public companies without formal by-laws for board procedures and evaluation. In addition, we realize that controlling shareholders interfere with board's work and there are very few companies with independent boards (JEL G32, G34).

Keywords: board of directors, corporate governance, market and companies.

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# Portfolio Optimization with Drawdown Constraints

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By definition, portfolio drawdown is a drop in the portfolio value compared to the previous maximum. We study a measure of risk, which depends on the portfolio drawdown curve (also called underwater curve) considered in active portfolio management. The new risk measure, Conditional Drawdown-at-Risk (CDaR), is defined as the mean of the worst x% drawdowns. This measure of risk is closely related to the Conditional Values-at-Risk risk measure. The CDaR risk measure has several important properties, which make it attractive from a practical perspective: (1) compared to variance or Value-at-Risk (VaR), it adequately reflects investors' preferences; (2) it is robust: it depends upon many significant drops in the portfolio value rather than on one extreme event; (3) information on sequence of evens is not lost (compared to approaches such as VaR or variance): (4) minimal data requirements: historical data can be directly used for path generation; (5) the technique is very stable numerically; (6) can be efficiently implemented using Linear Programming techniques. Some practical recommendations on how to use the CDaR measure for getting practically stable portfolios are provided. Using CDaR, we solved a real life portfolio allocation problem (portfolio of derivatives, see, [1]).

Keywords: drawdown, investments, portfolio optimization, risk management.

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# Mean-variance Efficient Portfolios by Linear Progamming: A Review of Some Portfolio Selection Criteria of Elton, Gruber and Padberg

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Finding the mean-variance efficient frontier is a quadratic programming problem with an analytical solution, whenever the portfolio choice is unrestricted. The analytical solution involves an inversion of the covariance matrix. When short-sale constraints are added to the problem it is usually thought of as adding considerable complexity to the quadratic programming problem.

This paper shows that such problems can be handled by a simple linear programming procedure, which allows for multiple changes of basis variables. We show how some classical selection criteria from models with particular covariance matrices fallinto this framework. Furthermore, adding linear constraints like maximum placement limits for subsets of assets is easily incorporated (JEL G11).

**Keywords:** linear programming, mean variance efficient portfolios, multiple basis shifts, placement limits, short sale constraints.

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## LP Solvable Models for Portfolio Optimization: A Survey

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The portfolio optimization problem considered in this paper follows the original Markowitz' formulation and is based on a single period model of investment. At the beginning of a period, an investor allocates the capital among various securities, thus assigning a nonnegative weight (share of the capital) to each security. During the investment period, a security generates a random rate of return. This results in a change of capital invested (observed at the end of the period) which is measured by the weighted average of the individual rates of return.

Following the seminal work by Markowitz, the portfolio optimization problem is modeled as a mean-risk bicriteria optimization problem where the expected return is maximized and some risk measure is minimized. In the original Markowitz model the risk is measured by the standard deviation or variance. Several other risk measures have been later considered thus creating the entire family of mean-risk (Markowitztype) models. While the original Markowitz model forms a quadratic programming problem, following Sharpe, many attempts have been made to linearize the portfolio optimization procedure. The LP solvability is very important for applications to reallife financial decisions where the constructed portfolios have to meet numerous side constraints (including the minimum transaction lots, such as in Mansini and Speranza, 1999) and to take into account transaction costs.

Certainly, in order to guarantee that the portfolio takes advantage of diversification, no risk measure can be a linear function of the portfolio weights. Nevertheless, a risk measure can be LP computable in the case of discrete random variables, i.e., in the case of returns defined by their realizations under the specified scenarios. The mean absolute deviation was very early considered in the portfolio analysis while quite recently Konno and Yamazaki (1991) presented and analyzed the complete portfolio LP solvable optimization model based on this risk measure, the so-called MAD model. Yitzhaki (1982) introduced the mean-risk model using Gini's mean (absolute) difference as the risk measure. For a discrete random variable

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represented by its realizations, the Gini's mean difference is LP computable (when minimized). Recently, Young (1998) analyzed the LP solvable portfolio optimization model based on risk defined by the worst case scenario (minimax approach), while Ogryczak (2000) introduced the multiple criteria LP model covering all the above as special aggregation techniques.

The variety of LP solvable portfolio optimization models presented in the literature generates a need for their classification and comparison. This is the major goal of this paper. We provide a systematic overview of the models with a wide discussion of their theoretical properties. We also show that all the risk measures used in the LP solvable models can be derived from the basic SSD shortfall criteria.

Keywords: portfolio optimization, mean-risk model, linear programming.

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# Forecasting Short Term Performance of Initial Public Offerings in Istanbul Stock Exchange

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The short term under pricing of initial public offerings (IPOs) is a well documented phenomenon. Ritter (1998), for example, reports an average initial underpricing of 15.8 percent for the US market for his sample of firms in 1960-1996 period. Similar magnitudes of underpricing were observed in other markets, both in developed and emerging economies. Previous research on IPOs has identified several factors or issue characteristics that play a role in the level of short term underpricing. Some of those issue features are the firm size, market trend, size of the offer, investment banker reputation, method of intermediation, stock price range and investor type.

The objective of this study is to develop a model based on these features to forecast the short term performance of IPOs in Istanbul Stock Exchange. To this end we divided our sample period into a model building subperiod and a testing subperiod. After identifying 9 issue features that are related with IPO short term pricing, we perform a factor analysis to reduce the explanatory variable set into four orthogonal factors with the IPO data in the model building period between 1992 and 1996. The logit models for 1, 7 and 15 day cumulative abnormal returns were estimated using these four factors. The model for day one did not turn out to be significant. For 7 and 15 day CARs, logit models included only one factor which is heavily related with the trend in the market at the time of the issue. These models are then tested against the IPO data in the subsequent period between 1997-2000. Overall prediction power was quite satisfactory. However, logit models largely failed to detect negative cumulative returns while they predicted positive returns with high precision. From an economic point of view, the logit model as a forecasting tool did not perform well when compared with a naïve investment strategy. This is the direct consequence of the model's failure to flag negative CARs (JEL G14, G15, G12).

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Keywords: initial public offerings, logit models, forecasting.

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## Determinants of Private Savings Behavior inTurkey

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This study investigates the effects on private saving rates of a number of policy and non-policy variables, including government policies, macroeconomic stability, income and financial variables as well as a number of life-cycle variables. The analysis will cover the period 1968-1994, and data is taken from the World Bank Savings Database. The empirical private saving model for Turkey is estimated using the least squares method and the findings are supported that the private saving rates have strong inertia. Income level has a positive impact on the private saving rate, which indicates that, ceteris paribus, more advanced countries tend to save a higher percentage of their GDP. Growth rate of income is not statistically significant which does not support the hypothesis that there is a virtuous circle that goes from faster growth to increased saving to even higher growth. Moreover, negative impact of life expectancy rate lends support to the life-cycle hypothesis. Another finding of this study is that the government savings is not tend to crowd out private savings. For Turkey, increases in government savings will not be offset by reductions in public savings. The findings further indicate that the Ricardian equivalence does not hold strictly. From a policy point of view, financial depth and development measure of Turkey (M2 to GPDI) suggests that countries with deeper financial systems will tend to have higher private saving rates. Private credit and real interest rates try to capture the severity of the borrowing constraints and the degree of financial repression. The precautionary motive for saving is supported by the findings that inflation captures the degree of macroeconomic volatility and has a positive impact on private saving in Turkey (JEL E21 C23).

Keywords: crowding out, precautionary motive, private savings, Turkish economy.

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### Stock Recommendations and Small Investors: Who Benefits?

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The objective of this study is to examine whether published investment advice generates higher returns for investors. We investigate the impact of security recommendations in the financial press on common stock prices in Istanbul Stock Exchange. Recommendations of *Investor Ali* column of the weekly-published popular economics journal *Moneymatik* constitutes our sample. The column is designed to inform individual investors about company prospects and use them as the basis for its recommendations. The results show that the published investment advice in this column does not help small investors earn excess returns. On the contrary, it provides a valuable deal to its 'preferred investors', if any, in selecting the stocks. If one could front-run the column's recommendations by five days he/she could earn more than 5% per week in excess of the index return. Compounded annually the excess return of a preferred investor could earn would be more than an amazing 1500% per annum (JEL G11, G12, G14, G15).

Keywords: insider trading, investment advice, ISE, stocks excess returns.

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# The Empirical Content of Constant Expected Return Asset Pricing Models Across Time

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This paper examines the validity of constant expected return asset pricing models (static CAPM and APT) in explaining pricing of assets across time. Three sub-sets of sample are formed for different time periods on the basis that during each sub-set of samples the U.K. economy experienced different economic conditions (1980-1997).

Consistent with Chen, Roll and Ross (1986), this paper shows that for the three sub-sets of time-periods, the value weighted market return, which is constructed from the sample, has significant explanatory power on pricing for all three-time periods (testing CAPM). However, its explanatory power on pricing diminishes after adding the unexpected economic factors (i.e. testing APT).

Antoniou, Garrett and Priestely (1998) propose that the same factors are priced across assets. This paper however shows that different economic factors capture the variation in average returns for different time periods. The sub-sets of samples, in this study, tight up with the economic cycles. Consistent with Priestley (1996), this paper suggests that as the riskiness of the economy changes over time, the factors at work change. In other words, the risk premia of factors change over time according to different economic conditions. These results undermine the appropriateness of the static CAPM and APT to explain pricing of securities across time and in particular indicate that the standard methodology may be strained when applied across time (JEL G14, G12, F11).

**Keywords**: arbitrage pricing model and two-step estimation, capital asset pricing model.

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# CAPM: Living Dead and Loving it

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The Capital Asset Pricing Model is alive for a few, dead for many, but still quite popular. The CAPM can be brought back to life by deriving the beta equation of the CAPM from a Consumption CAPM with a beta that is nonlinear, time dependent, and contaminated with the error term. This contamination makes the estimator of the beta biased for the linear regression techniques used to estimate the CAPM. Hence, the beta equation of the CAPM if not the CAPM itself is still alive, since linear regressions techniques should not be used. This CCAPM beta is not related to consumption growth as in more constrained versions of the Consumption CAPM, but is a relative measure of sensitivity to errors in forecasting interest rates. In these more general models, a complicated utility function and nonlinear estimation technique is necessary but gives poor results. This is avoided by using the risk neutral pricing technique widely understood and accepted in the derivative industry. Beta pricing becomes a simple and fast side effect of pricing an option on the stock. Beyond the beta equation of the CAPM, this flexible model can also reproduce empirical anomalies such as the equity, book to market and size premiums. Geske recognized in 1979 that the bondholder's right to liquidate the company in a bankruptcy is a short call that the stockholder holds long. This embedded call option in the stock price creates a book to market and size premium in addition to the model's equity premium derived before (JEL G14).

Keywords: CAPM, CCAPM, ICAPM, endogenous factors, nonlinear.

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# Credibility, Macroeconomic Fundamentals, and Markov Regime Switches in the European Monetary System

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The main objective of this paper is to use the Markov regime-switching modelling framework to describe and analyse the credibility of a number of countries participating in the European Monetary System during 1980-1998. Our credibility indicator, derived from a time-varying capital asset pricing model, is subject to discrete regime shifts and is made dependent on macroeconomic fundamentals. A major innovation of our paper is the specification of a multivariate Markov switching model which allows us to examine whether macroeconomic variables have asymmetric effects on credibility. Another innovation is to specify a regime switching model with time-varying transition probabilities, which allows us to determine whether changes in macroeconomic variables can trigger switches between the low and high credibility regimes. We find strong evidence of regime switching behaviour in all countries. Both the level of credibility and the transition probabilities display an asymmetric response to changes in macroeconomic variables, with the stance of fiscal policy exerting the most systematic influence in all countries (JEL E63, F33, C22, C51).

Keywords: credibility of monetary policy, European monetary system macroeconomic fundamentals, Markov regime switching.

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# The Impact of Intangible Assets and Financial Distress on Acquisition Probability and Price

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It has been argued that the intellectual assets of high tech firms are more difficult to value than the brick and mortar of low tech firms, and that perhaps this difference results in greater market friction for high tech firms. Once in financial distress the purported market imperfections for high tech firms may be even more pronounced. We examine the probability of financial distress, the likelihood of acquisition conditional on distress and the purchase premium for acquisitions, matching firms in financial distress with firms that are not distressed, and distinguishing firms in high technology industries from those in low technology industries during the period 1980 through 1997. Results indicate that distinctions between high and low tech firms manifest themselves in the probability of acquisition and premium paid by the bidder. The probability of financial distress is not different between the high and low tech groups. Surprisingly, high tech firms in our sample are less often acquired by firms in related industries than low tech firms, when relatedness is defined at the 4-digit SIC code level (JEL G33, G34).

Keywords: financial distress, information asymmetry, takeover.

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# Share Ownership and Company Structure, Takeover Characteristics and Takeover Bid Success or Failure

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This paper presents a full model of ownership, company structure and takeoverrelated variables hypothesised as being likely determinants of the success or failure of takeovers announced in Australia over the period from 1991 to 2000. Previous international research (see Walkling, 1985, Hoffmeister and Dyl, 1981 and Hirshleifer and Titman) have identified target management resistance, target company size, bid premiums offered and toehold shareholding levels of bidder companies as common determinants of takeover outcome. Previous research for Australia by Eddey (1991) and (1993) is less clear, and only limited factors have been evaluated as determinants of the success or failure of takeovers.

Using logit analysis, the findings support prior conclusions regarding the importance of toehold shareholding levels by bidding companies, the recommendations of directors of target companies, the level of bid premiums offered and the existence of competing bidders in determining takeover outcome. This is also the first study to document the significance of recommendations provided by independent experts, the scope of takeover offers, the industry-relatedness of bidding and target companies and the existence of offer price revisions in influencing the likelihood of takeover success or failure. Other findings suggest some differences in outcome determinants for friendly and hostile takeovers, and provide new evidence regarding the impartiality of directors' recommendations (JEL G34).

Keywords: determinants, logistic regression, takeover outcome.

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Skewness and Kurtosis in Financial Data and the Pricing of Options

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This article provides a mathematical and empirical investigation of the reasons for the presence of skewness and kurtosis in financial data. The results indicate that this phenomenon is triggered by higher-order moment dependencies in the data, such as asymmetric and conditional volatility. Moreover, the article develops and tests successfully a skewed version of the generalized error distribution (SGED), which is then used to model European call option prices. Under the standard assumptions of risk neutrality, normality of log-returns, and absence of arbitrage opportunities, the SGED model yields as special cases several well-known models for pricing options on stocks, stock indices, currencies, and currency futures (JEL C13, C22, G12, G13).

**Keywords:** asymmetric volatility, call option pricing, conditional heteroskedasticity, geometric Brownian motion, kurtosis, skewed GED.

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# Market Response to Announcements of Mergers of Canadian Financial Institutions

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This study examines a sample of mergers of Canadian Financial Institutions during the 1990's to determine whether in-pillar, cross-pillar and foreign mergers are value-enhancing, and to determine possible sources of synergies behind those mergers. We develop testable hypotheses for Canadian FI mergers by synthesizing prior US tests in the context of Canadian institutional arrangements. The overall results support the generality of findings of prior US studies that the average abnormal return for both the acquiring and target firms is positive and statistically significant. This result suggests that acquisitions in the financial industry are , in Canada as elsewhere, driven by value-maximizing motivations. Our study also shows that acquiring institutions' shareholders benefit more when the acquisition is of a similar type (in-pillar) and domestic (JEL G14, G20, G34).

Keywords: bank mergers, Canada, event study.

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# Developing Weather-Based Index Insurance in Developing Countries

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This article analyzes the feasibility of weather based index insurance in developing countries as an alternative to existing mechanisms for coping with catastrophic weather events. It uses Morocco as case study to support the general concept.

The article argues that in recent years, there has been a convergence of traditional insurance and capital markets. There are a number of innovations in packaging weather risk into various forms of tradable financial assets such as catastrophe bonds; insurance contracts; exotic options; or some other financial derivatives. These instruments provide the holder with capital contingent upon the occurrence of some risky event. By purchasing these instruments, those holding the risk share some of their risk exposure with market investors. Those selling the instruments earn favorable returns and are willing to accept the risk as part of a diversified portfolio. The development of risk-sharing instruments based on natural phenomena has escalated rapidly in recent years, partly due to the increase in natural disaster losses. In parallel, an active U.S. weather market based on temperature has emerged, since the deregulation of the utility industry in 1997. Weather markets are becoming more international with a number of European firms involved. Although weather markets are quite advanced in the energy sector, applications to agriculture are still very limited. This is because weather markets are very new and have to compete with highly subsidized agricultural insurance in developed countries.

Weather insurance is based on the occurrence of a weather event, rather than on actual crop losses. The key advantage is that the weather or "trigger" event (e.g. a

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rainfall shortage) can be independently verified, and therefore the usual problems of moral hazard and adverse selection associated with traditional crop insurance are lessened. Besides, the insurance would be easy to administer, since there are no onfarm inspections and no individual loss assessments. After presenting the benefits of weather insurance, the article uses the case of Morocco to assess its feasibility. The analysis focuses on Morocco's three main cereal crops using data on annual production and monthly rainfall from 1978-99. The results indicate that a rainfall-based index insurance is feasible in Morocco, where the statistical correlation between rainfall and cereal revenues is strong in 17 provinces in the more favorable agro-climatic zones. Rainfall insurance can reduce cereal revenue variations in Morocco by about 30%. The findings support that developing countries could benefit greatly from the development of weather insurance instruments in dealing with catastrophic weather events (JEL G15, G22, Q14).

**Keywords:** agricultural risk management, catastrophic risk, insurance, weather derivatives.

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# Determinants of International Portfolio Investment Flows to a Small Market: Empirical Evidence

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This paper investigates the determinants of foreign portfolio investment flows into a market on which restrictions for foreign investments were recently removed, the Finnish stock market. During our research period, the relative share of the Finnish stock market owned by foreign investors has rapidly grown and was in December 1998 53% of the total market value of the listed shares. Using company specific data on the degree of foreign ownership, we report that foreign investment flows are significantly related above all to variables related to investment barriers, the dividend yield, liquidity, and firm size, and to some extent to profitability, variables robust in different model specifications. We also find a significant positive difference between the returns for foreign and local investors, which is largely explained by the foreign investors' larger holdings in the successfull company Nokia which is dominating the Finnish market portfolio (JEL G11, F2).

Key words: home bias, International diversification, Portfolio flows.

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# Dynamic Portfolio Selection: The Relevance of Switching Regimes and Investment Horizon

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This paper investigates the questions of dynamic portfolio selection and intertemporal hedging within a Markovian regime-switching framework. The investment opportunity set is spanned by a well-diversified home-market portfolio and the risk-free asset. Our result highlights the importance of regimes, as optimal portfolio weights are clearly regime-dependent. We present evidence that the question of intertemporal hedging is a more complex issue than is hinted in the previous literature, since demand for intertemporal hedging is present in some regimes, but not in others. Finally, our findings are robust for the most influential economies in the world, the US, Japan, the U.K. and Germany (JEL G11, G15, C15, C32).

Keywords: dynamic portfolio selection, intertemporal hedging, regime switching.

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# Forum Selection in International Business Contracts: a Portfolio Puzzle

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International business contracts or multi-state transactions within federally structured countries might be regulated under more than one legal system. In case of conflict between the transacting parties, the appropriate tribunal must be identified. We examine the question of business firms' optimal choice of the forums to adjudicate future business disputes. We extend the investment model approach to litigation, by applying a "Portfolio Theory" type analysis. We show that firms that prefer higher expected income and lower income volatility are better off diversifying the forums under which they litigate business disputes. This stands in contrast to real-world business practice that consistently shows a clear preference to selecting the "home" court and legal system to settle international business disputes. We hypothesize that specialization and moral hazard explain the puzzle and suggest that, as international barriers decline and international trade grows, firms will diversify the forums in which they adjudicate international business disputes (JEL F29, F39, G11, G39, K49, L19).

**Keywords:** contracts, forum-selection, international transactions, investment approach to litigation, managerial discretion, moral hazard, portfolio diversification.

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### Trading in the Australian Foreign Exchange Market

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This paper analyses responses provided by dealers trading in the Australian foreign exchange market in 1999 to a survey conducted on market behaviour. While the information required from the dealers was more qualitative than quantitative, the dealer's responses to the survey questions can be used to develop a framework for econometric models on market behaviour. The survey questions addressed three main areas: exchange rate predictability, trading strategies, and the main factors preventing exchange rates from reflecting their fundamental value. The survey respondents do not feel that exchange rate movements can be accurately predicted. In fact they see exchange rate movements as being only sometimes predictable. Nevertheless this feeling of unpredictability has not prevented dealers from adopting trading strategies aimed at making a profit from exchange rate movements. The majority of respondents indicate that they trade using an even mixture of fundamental analysis and technical analysis. They point out that fundamentals analysis is useful in the medium to longterm whilst technical analysis is more relevant in intra-day and daily trading. Excessive speculation and manipulation by hedge funds were nominated as the main factors preventing exchange rates from reflecting their fundamental value. Excessive intervention by central banks also received some support but dealers considered that intervention by the Reserve Bank of Australia was generally successful and conducted at the most appropriate time. Then again the survey respondents did not feel that speculation could fully explain intra-day exchange rate movements. They felt that that order placements by clients and over-reaction by market participants to events are major influences on moment-to-moment movements in exchange rates (JEL F30, F31, G15).

Keywords: foreign exchange, speculation, survey data, trading strategies.

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# Exploring the Benefits of International Diversification and Currency Hedging for International Fund Portfolios

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We studied empirically three categories of investment funds of Union Bank of Switzerland (UBS), in order to investigate the optimal asset allocation of internationally diversified fund portfolios and the performance of currency hedged versus unhedged fund portfolios, from the different points of view of the investors. More specifically we considered a money market fund, a bond fund and an equity fund in US dollars, British Pounds and Japanese Yen. According to maximum Sharpe ratio criteria the optimum asset allocation is around 80% local currency funds and around 20% of the investment in foreign funds. However, when the investor prefers risk the benefits from international diversification are considered higher for risk lovers. These benefits are also higher for investors with clear downward trend of domestic currency, stock, and money markets (e.g., Japanese) for any specified level of risk. The performance of hedged international funds show that currency hedging can reduce the volatility of foreign funds portfolios. However in case of equity funds, static hedging with currency forwards does not lead to the raise of the expected return and if we take the transaction costs into account the benefits from static hedging disappear. Finally in special economic situations (e.g Japan) hedging can lead to negative results (JEL F3, G1).

**Keywords:** asset allocation, currency hedging, international diversification; mutual funds.

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# An Assessment Of The Value Of Brokerage Information For Individual Investors

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Investors investing on the Johannesburg Securities Exchange (JSE) base their investment decisions on information available from the financial press, radio and television programmes or on information obtained from a broker or investment consultant. The purpose of the study is to test the hypotheses that an individual using information obtained from a sharebroking company can earn a return in excess of the market return on the JSE. To test this hypothesis, a buy, hold and sell portfolio was created using the average recommendations received from the brokers. Previous research by Womack (1996:165) indicates is strong evidence that the prices of shares are influenced by the recommendations of analysts. In a study done by Desai and Jain (1995:1257) to analyze the performance of mutual fund managers, brokerage houses and pension fund managers, it was observed that on average fund managers were not able to outperform passive benchmarks. Stickel (1995:25) concludes that recommendations to buy and sell by brokers influence the price of the share. McNicols and O'Brien (1997:197) found that analysts tend to issue recommendations selectively, depending on whether the information available to the analyst is favorable or not.

The results of the South African study undertaken here, indicate that, based on the risk-unadjusted returns, the investor benefited by acting on the brokers' recommendations. However, the risk-adjusted returns of the buy, hold and sell portfolios were much lower than those of the unadjusted returns, and, when compared to the Indices, no significant differences between the buy, hold and sell portfolios and the Indices were achieved.

Keywords: brokers recommendations, risk-adjusted returns, stock returns.

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# The Structure of External Financing Costs and the Economies of Scale View - New Evidence from Seasoned Equity Offerings in Germany

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This paper is focused on the cost of raising equity capital in Germany. In the spirit of Altinkiliç/Hansen (2000) it challenges the conventional wisdom that flotation costs are characterized by economies of scale. Actually, it extends their work in the sense that a sample with a richer set of contractual arrangements is used. Moreover, a more general specification of a flotation cost function is analyzed.

In order to shed new light on this issue, a cross-sectional analysis of 120 SEOs on the German capital market over the years 1993-1998 will be carried out. The sample should not be affected by any kind of data mining. Five different specifications for an average flotation cost and underwriting fees function are tested. Some of them will have considerable explanatory power, which is against the presumption that underwriting spreads are clustered. It is interesting to see that average total flotation costs in Germany amount to 1.61 percent of gross proceeds, while average underwriting fees are about 1.32 percent. Moreover, it turns out that flotation costs rise the larger the free float of the company is and the larger the share of stocks offered within a firm commitment cash offering is. The impact of the offer price discount is U-shaped, while stock price volatility has only a weakly significant impact.

As far as the economies of scale view is concerned, we do not find clear evidence in favor of decreasing marginal flotation costs. Depending on our model specification we find either no evidence for decreasing marginal cost or, at the most, evidence for slightly decreasing marginal costs; simple calculations, however show that the effect can be economically neglected. Moreover, fixed costs seem not to be very high in that they account on average for not more than 14 to 24 percent of total flotation costs or total underwriting fees, respectively. For medium and large sized issues this share is below 10 percent (JEL G24).

**Keywords:** economies of scale, flotation costs, seasoned equity offerings, underwriting fees.

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# Market Reaction of Mergers & Acquisitions In the Athens Stock Exchange

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The decade of 1980 was the decade of the merger wave in the U.S.A. and the 1990 was the decade of markets' globalization. According to the European Commission, the number of major mergers involving EU-based companies nearly tripled between 1983-1987 and accelerated further during the 1990s, as companies were seeking the large scale they needed to survive and prosper in the new competitive environment. In Greece, the managers realized this need for larger size and capitalization base for their firms in order to survive in the new globalized markets, late in the 1990's. The first merger wave in Greece occurred just recently, during 1998 and 1999. Therefore, the focus of this study is Greece. Our purpose is to investigate the effects of merger and acquisition announcements on the shareholders' wealth of the acquiring companies that are listed in the ASE, during the period of the first merger wave in the Greek market, 1998-1999, before the establishment of the amended legal framework on mergers. The results indicated that there is a non-significant negative market reaction for the acquiring companies during this first merger wave (JEL G14, G34).

Keywords: event study, mergers and acquisitions, wealth effects, Greece.

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# Stock Price Interaction Between Bidding and Target Companies During Takeover Bids

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This paper is the first empirical study of the extent and nature of stock price interaction between target and bidding companies. We argue that interaction has two potential sources. The *first* occurs in share-exchange and mixed bids as the variable bid price is transferred to the target price. The *second* results from the possibility that both bidder and target share prices reflect the likelihood of success of the takeover bid. We find the strongest effect of interaction in share-exchange bids, and some evidence from cash bids of interaction that is most likely to be explained by the probability of success effect. Our findings have important implications for risk arbitrageurs (JEL G12, G34).

Keywords: ARCH, takeover, tender offer, volatility

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### Initial Curves for Interest Rate Models: An Empirical Study

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We analyze the implications of the choice of the initial curve on the calibration of the extended Vasicek model. In particular, we investigate the empirical relevance of the concept of "consistency". We perform analysis both on simulated and market data. Our results show that the initial curve has a significative impact on the estimates of the parameter of the model. We identify a family, consistent with the model, which, on market data, shows more stable estimates, as well as better fitting and forecasting capabilities (JEL E43, C13).

Keywords: interest rate models, consistency.

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Taxation, Uncertainty, and the Cost of Equity for a Multinational Firm

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From a CAPM-type model the cost of equity is derived for a firm operating under various corporate tax systems, e.g., abroad or in particular sectors of an economy. The firm's shares are traded in a market which is unaffected by these systems. The cost of capital depends on the tax systems in question, even for fully equity financed projects. This is neglected in much of the literature and practice based on the weighted average cost of capital. For a corporate income tax the main factor which reduces the cost of equity is the depreciation deductions. Compared with a neutral cash flow tax, these reduce the cost of equity because they act risk-wise as a loan from the firm to the government. For a given depreciation schedule the cost of equity is a decreasing function of the corporate tax rate. Under some realistic circumstances the result is stronger: The beta of equity is proportional to one minus the tax rate. The results carry over from two-period to multi-period models. They are modified, but not removed, if the tax value of depreciation deductions is risky. This can be modelled using option valuation techniques.

The results are relevant for capital budgeting in firms which face widely different depreciation schedules or corporate tax rates. They are also relevant for discussions of tax reform, and numerically if one wants to apply capital market data in capital budgeting.

Compared with previous studies, the method is improved by solving for the aftertax marginal project. Compared with Levy and Arditti (1973) it is argued that their assumption of a perpetual commitment to reinvestment is unrealistic (JEL F23, G31, H25).

Keywords: corporate tax, cost of equity, weighted average cost of capital, uncertainty.

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# International Corporate Investment and the Role of Financial Constraints

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This study provides international empirical evidence related to a recent debate in the corporate investment literature regarding the impact of financial constraints on investment outlays, as discussed in Fazzari, Hubbard and Petersen (2000), and Kaplan and Zingales (2000). Firm investment decisions are examined using unbalanced panels of data for companies from seven of the world's largest economies over the 1987-1997 period. The investment decisions of firms that are financially constrained are much less sensitive to the availability of internal funds than those that are not constrained. The evidence is particularly strong for firms classified according to financial health, as measured by financial ratios, but is also prevalent for groups formed according to dividend behavior and firm size. This international evidence provides strong support for the generality of the results of Kaplan and Zingales (1997) and Cleary (1999), and contradicts the conclusions of several prior studies.

The evidence also suggests that a major reason for the weak investment-cash flow sensitivity displayed by unhealthy firms is that they are reluctant to invest when debt levels increase, irrespective of the availability of internal funds. These firms appear reluctant to assume additional debt, and many are too preoccupied with reducing the amount of existing debt outstanding to consider undertaking many long-term investments. In other words, they are busy building up financial slack, which has long-term value, as postulated by Myers and Majluf (1984).

The results provide firm level support for the accelerator theory of investment. In other words, the financial health of a firm has a significant impact on its capital expenditures, since firms that are not financially stable, will reduce their investment outlays and focus on improving their financial position. In contrast, healthy firms will be in a position to take advantage of attractive investment opportunities as they arise. At the aggregate level, there will be more constrained firms during economic downturns, and more unconstrained firms during growth periods. As a result, aggregate economic shocks in either direction will be magnified through a corresponding acceleration or deceleration in investment spending, a large part of which is attributable to financial constraints, not to reduced demand expectations (JEL G31, G32, G15).

Keywords: financial constraints, international, investment.

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### Internationalization of the Finance Function of Finnish Firms

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This article examines the corporate characteristics of Finnish firms internationalizing their finance function over a period from 1987 to 1995. Internationalization of the finance function means that firms establish finance subsidiaries abroad in order to conduct finance activities such as foreign exchange management, raising and investing funds. The model used to describe corporate characteristics includes company factors such as size, complexity of organization, internationalization stage and financial expertise. Using t-test it was determined that a large proportion of foreign sales and employees abroad, a mature stage of internationalization and financial expertise characterized firms establishing finance companies abroad. The multiple regression indicated that the variables used, size, complexity of organization, internationalization stage and financial expertise, were in fact important. The findings support prior conclusions, that big firms with a large proportion of business abroad, with financial expertise, were more inclined to internationalize their finance function (JEL F30, F23, G30).

**Keywords:** finance function, foreign operations, internationalization.

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# The Impact of Political and Economic Events on the Specification of the Asset Pricing Model Described by the Arbitrage Pricing Theory

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The unbanning of the African National Congress (ANC) and the release of Nelson Mandela on 11 February 1990, two events that can be regarded as milestones in the history of South Africa, led to significant changes in the economic landscape. This article seeks to examine the impact of political and economic events on the specification of the nonlinear multifactor asset-pricing model described by the Arbitrage Pricing Theory on the Financial and Industrial sectors of the Johannesburg Stock Exchange (JSE). Nine prespecified risk factors were used, one of which was chosen as a proxy for political events and five others as proxies for economic events. All risk factors were treated in order to calculate their unexpected movement and then tested for stationarity. The model developed by Pesaran and Timmerman (1995) was used to find the best subset Linear Factor Model (LFM), chosen for producing the highest adjusted R<sup>2</sup>, month by month, over 87 periods from 20 October1991 to 21 June 1998, with the combination of the nine prespecified risk factors. Two multivariate analysis techniques, namely the iterated nonlinear seemingly unrelated regression (ITNLSUR) technique (McElroy & Burmeister 1988) and the three stage least squares (NL3SLS) technique (Garrett & Priestly 1997), were then used to establish whether the factors in the best subset LFM were priced in the Arbitrage Pricing Theory Model (APTM). A conventional approach that would have evaluated important political and economic events, case by case, to determine whether they affected the linear factor model (LFM), and subsequently the APTM, could not be used since no correlation was found between the pricing of a risk factor in the LFM and its subsequent pricing in the APTM. A new approach was then followed in which a correlation with a political or economic event was sought whenever a change was detected in the specification of the APTM. This was done by determining which risk factors were priced most often during the three equal sub periods into which the 87

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periods were broken up. Using the above methodology, the researcher was able to conclude that political events changed the specification of the APTM in late 1991. After the national elections in April 1994 it was found that the acceptance of South Africa into the world economic community had again changed the specification of the APTM and that the two most important factors were proxies for economic events. (JEL C12, C32, G12).

**Keywords**: arbitrage pricing theory, arbitrage pricing theory model, linear factor model.

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### Emerging Stock Markets: Investing with Political Risk

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Besides market risk, investments in emerging markets are also exposed to political phenomena that are not generally present in the more developed economies. This problem is well known to banks and multinational companies as country or political risk. Assessment techniques in these domains are relatively well developed but unadapted to portfolio investment in that they tend to ignore the diversification aspect associated with cross country correlations. In this paper we address the problem of political risk with cross country correlations. We develop a model for simultaneously measuring the cost of political risk in several countries that retains most of the characteristics of the single country risk model in terms of its ability to price political risk based on the stochastic process of exposure to loss and the expected frequency of loss causing events. It generalizes the one company-one country approach, however, in that a multivariate approach is taken and correlations across countries are considered directly. The technique developed here can be implemented into a decision support program, providing a feasible solution to the ongoing difficulty of apprehending the multivariate nature of political risk and integrating it into the process of portfolio management (JEL D81, F23, G22, G31).

**Keywords**: geometric brownian motion, insurance policy, political risk, portfolio investment, poisson arrival process.

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# Corporate International Investment Under Incomplete Information and Taxes

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This paper extends the theory of corporate international investment in Choi(1988) in an environment where the segmentation of international capital markets for investors or the presence of agency costs provide some independence to corporate decisions. The model shows that real exchange risk, the competition between firms in different markets and diversification gains affect corporate international investment.

By accounting for the role of information, the model embodies different existing explanations based on economic and behavioral variables. We show in a "two-country" firm model that real exchange risk, diversification motives and information costs are important elements in the determination of corporate international investment decisions. The dynamic portfolio model reflects the main results in several theories of foreign direct investment.

Using optimal control methods, we provide the general solution for the proportion of firm's total capital budget. We also use a new method to get explicit solutions in some special cases. This new method can be applied to solve other financial control problems (JEL G11, G12).

Keywords: dynamic programming, international investment, portfolio choice.

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# Financial Leverage and Business Policy Evidence from Dutch Management Buy-Outs

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In Holland Management Buy-Outs (MBOs) have become a popular instrument for corporate restructuring and transformation. After an MBO, firms tend to perform better than before the transaction and better than other firms in the same industry. There are several explanations for this phenomenon. Combining Finance and Organization, this paper concentrates on one of these explanations: the impact of increased financial leverage on business policy after an MBO. Until now, empirical literature has not yet provided an unambigious answer whether an increase in financial leverage is a curse or a blessing. By formulating and empirically testing five hypotheses describing the relationship between financial leverage and business policy after an MBO, our paper reveals positive results of leverage. It shows a positive correlation between financial leverage and business policy, and the results are more clear when venture capital participation is considered. This is because by dividing the sample into MBO firms with and without venture capital participation, we discovered some interesting differences. Among other things, the buy-out managers and the chief executive officers of venture-capital-backed firms often demand a higher performance and pay more attention to cost control in comparison with the non-venture-capitalbacked MBO firms. These managers and executives frequently report substantially higher levels of cash flow, working capital and investment after the MBO. Also, they frequently report faster decision making and, in general, a more effective business policy. Besides, they inform their external investors more often about the operations of the firm, using the external investors' active participation more intensively in generating and selecting business policy proposals. This reflects the changes which took place in the governance structure after the transaction, whereas this structure

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remained more or less unchanged for the non-venture-capital-backed MBO firms. A fruitful area for further research includes the question to what extent venture capitalists contribute to the economic performance of the MBO firms they invest in. Starting from our study we may conclude that venture capitalists not only select the best performers among the MBO firms, but also succeed in stimulating the MBO managers to pay more attention to improve short-term as well as long-term performance (JEL G24, G34, M10).

Keywords: management buy-out, financial leverage, business policy, venture capital.

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# The Introduction of Share and Option Rewards: the Long-Term Consequences for Newly Public Companies in The Netherlands

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Though very few companies go public with the aim of changing their reward system, two thirds of Dutch companies introduce remuneration based on options and/or shares when going public. Options, however, are more complex to evaluate than shares and option incentives are less straightforward. Therefore, we test whether the performance of companies that apply option rewards is worse than the performance of companies that reward with shares. We find that the introduction of shares is indicative for future positive company performance. Companies that introduced shares at the IPO-date will within three years on average have more than twice the value of companies that did not introduce shares. Moreover, the introduction of an "elitist" system of remuneration (options only for top managers) resulted in long-term underperforming companies (JEL G39, J33).

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Keywords: elitist system, IPOs, long-term performance reward systems, share rewards.

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## Fundamental Market Analysis with Rational Expectations: a Model for the Corn Market

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The standard method to modelling the corn market within a rational expectations approach is to relate the corn price to the innovations and the shocks coming both from the supply and demand sides. The present study shows how to extend the traditional approach so that both corn price and stocks can be specified in terms of short and long term excess demand. This approach allows joint estimation of production, consumption, net exports, stocks demand and prices subject to simple restrictions between the structural and the reduced form model expressed in terms of the market fundamentals and accounting for the dynamic properties of the data. The estimated results are in line with the qualitative prediction of the theoretical model (JEL G15, Q13, C32).

Key words: competitive storage, market fundamentals, rational expectations.

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Born on April 14 <sup>th</sup>, 1897, the Industrial Association of Brescia (AIB), with its century of history, is the most ancient industrial association of Italy and it represents, with his 1300 member companies for a total manpower of 70,000, a remarkable part of small, medium and large firms of the province.

It joins Confindustria, the most important Italian employer organization. AIB promotes business culture, takes care of its associates affairs and participates in the local political, administrative and economic choices.

Along with these duties, AIB offers to its members a wide range of services aimed at making the management of the concerns smoother and at building a business cultural background.

AIB President is Mr. Aldo Bonomi. Its General Manager is Mr. Salvatore D'Erasmo.



## Use of Derivatives by Australian Companies

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In an analysis of annual reports of 357 companies drawn from the largest 513 companies listed on the Australian Stock Exchange it is found that 229 of the 357 companies use derivatives. The motivation for the use of derivatives has generated research overseas but little research has been conducted on Australian companies. This study provides some insight into derivative use by Australian companies with the application of logit analysis to the question of why companies choose to use derivatives. It is apparent that size (scale), financial distress/cash flows, management compensation and broad industry category motivate derivative use in Australia. The results are generally consistent with overseas research though there are some differences particularly with respect to leverage, growth options and director share ownership (JEL G31, G32, G33).

Keywords: compensation, distress, derivatives, growth, size.

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# Monetary Transmission in an Open Economy: The Differential Impact on Exporting and Non-Exporting Firms

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Using firm-level data from the 1990s for publicly traded manufacturing companies in Israel, a liberalized and open economy, we find that monetary policy affects real investment and that the effect operates differentially on the firms in our sample - the greater its export intensity, the less a firm is affected by tight money. We examine several interpretations and conclude that the evidence indicates that the impact is transmitted primarily through the balance sheets of firms whose access to foreign currency funding is relatively constrained (JEL E5, F3).

Keywords: balance sheet effect, monetary transmission, open economy.

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# The Capital Structure Choice: Evidence from the Jordanian Corporate Sector

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This paper examines the nature and determinants of the capital structure choice of Jordanian non-financial listed companies. The main objective of the paper is to provide answers to the following questions:

What is the capital structure choice of Jordanian companies? Do corporate financial structure decisions differ between Jordanian and other countries' companies?

Are the explanatory power of main stream capital structure theories applicable to Jordanian companies?

Has the end of financial repression had any impact on the capital structure choice of Jordanian companies?

Based on the time period 1984-1998, the results indicate that Jordanian companies have relatively lower leverage ratios and much of the explanatory power of main stream capital structure theories are applicable to the Jordanian case. Moreover, interest rate liberalization affected the hypothesized determinants of the capital structure choice.

**Keywords:** Amman securities market, capital structure, profitability, interest rate liberalization.

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# Implied Volatility Surfaces: Uncovering Regularities for Options on Financial Futures

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It is well known that the implied volatilities of options on the same underlying asset differ across strike prices and terms to expiration. However, the reason for this remains unclear. Before the development of theory to explain this phenomenon, it may be helpful to better understand the empirical record of implied volatility surfaces. If regularities are discovered which are stable overtime, this may aid the development of theories to explain implied volatility surfaces and provide a means to test alternative models. This paper identifies these regularities and subsequent research will examine the implications of these results.

While a number of papers have examined individual option markets and identified smile patterns, it is not clear whether the conclusions found are based upon idiosyncrasies of a particular market or more generally apply to options in other markets. This research fills this gap in the literature by examining sixteen options markets on financial futures (comprising four asset classes) and compares the smile patterns across markets. Furthermore, this analysis considers a longer period of analysis than previously examined in the literature. This allows assessment of the stability of the implied volatility patterns for a variety of subperiods and testing of models outside of sample.(JEL G13)

**Keywords:** heterokurtosis implied volatility surfaces, shocks, skewness, risk neutral processes, kurtosis, volatility smiles.

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### On Modelling Credit Risk Using Arbitrage Free Models

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By examining the distribution of state prices obtained from binomial versions of Jarrow and Turnbull (1995), Lando (1998) and Duffie and Singleton (1999), we are able to suggest which credit risk parameters are of critical interest. We find that it appears worthwhile to parameterize credit risk since even the simplest parameterized model obtains large changes in the distribution of state prices when compared to a non-parameterized model. Similarly we find large differences in the distribution of state prices as we add correlation and moderate changes as we add time varying recovery rates. Finally, the choice between the RM or RF recovery assumption appears innocuous, but the choice between RT and these two recovery assumptions is not (JEL G13).

Keywords: arbitrage free pricing, binomial lattice, credit risk, credit derivatives.

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Dual-Listing of Australian Shares on the New Zealand Stock Market

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The present study investigates the impact of dual listing of Australian shares on the NZSE. The results suggest that the average excess return on the day of listing is negative but is statistically insignificant. The negative excess return starts to accumulate before the day of listing and becomes statistically significant several weeks after this date to the end of the period (day +150). These results are not significantly different between low liquidity and high liquidity sub-samples. The impact of dual listing on the volume of trade is negative and insignificant at the conventional statistical levels. The impact of dual listing on the volatility is positive and on the systematic risk and the cost of capital it is negative. However, the estimated changes of these coefficients are not statistically significant. In contrast to most of the previous findings, we can conclude that the New Zealand listings of Australian shares have no tangible financial benefits for the shareholders (JEL G140).

**Keywords:** dual listing, market anomaly, market integration, market segmentation, event study.

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# Arbitrage Opportunities in Parallel Markets: The Case of the Czech Republic

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Two market structures emerged from the privatization procedure in the Czech Republic in 1993, the Prague Stock Exchange (PSE) and the Registration Places System (RMS). The co-existence of these two parallel markets with overlapping trading hours and securities provides an opportunity to analyze the evolving nature of the price discovery process in emerging markets. This study employs an Arbitrage Trading Model to estimate the degree of mispricing among 84 stocks traded on the two markets between January 1996 and July 1999. The results indicate that price adjustment between the two markets is slow and that arbitrage opportunities are available over the period. Also, the strength of price linkage for a particular stock is directly related to its liquidity (JEL G12, G14).

Keywords: arbitrage, emerging markets, price linkage.

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## Accurate Forecasting for High Frequency Financial Variables

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Forecasting future stock prices has become a topic of major interest for researchers and practitioners. However it is widely known the existence of shortcomings on predicting high frequency financial variables. The first drawback comes from the fact that forecasts based on the first and second moments are not valid since the distribution of most asset prices is far from normality and, therefore, all the moments of the right distribution should be considered. The second problem rises from the need to recalculate predictions as new information arrives at the market and the current conditional density changes. Finally, it is worth noting that the quality of the forecasting intervals depends on their ability to produce accurate measurements of risk, rather than on their size. This paper sheds light into accurate forecasting by using a distribution flexible enough to capture the probabilistic behaviour of most financial variables, the so called Edgeworth-Sargan distribution (Sargan, 1980; Perote, 1999; Mauleón y Perote, 2000). The paper also highlights the need to estimate densities conditioned at every time that new forecasts are computed. That is especially relevant for high volatility periods where the density is sharply unstable and forecast based on densities conditioned on past information sets are clearly misleading. In order to compare the gains of such a forecasting method, one-stepahead forecasting confidence intervals are computed either by assuming normal or Edgeworth-Sargan distributions. Intervals are also calculated considering both conditional and unconditional distributions. The comparison in terms of predictive accuracy is carried out using daily data, spanning 25 years from major world stock markets (JEL G10, C13, C53).

**Keywords**: confidence intervals, conditional densities, financial data, forecasting accuracy, Edgeworth-Sargan distribution.

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# An Intraday Test of Pricing and Arbitrage Opportunities in the New Zealand Bank Bill Futures Market

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This paper investigates pricing and arbitrage opportunities in the bank bill futures contract traded on the New Zealand Futures and Options Exchange (NZFOE) using a high frequency data set. Prior research on the Treasury bill futures contract traded on the Chicago Mercantile Exchange using low frequency data has documented significant mispricing and/or substantial arbitrage opportunities (e.g. Lang and Rasche, 1978; Elton et al., 1984). This paper is also motivated by Goodhart and O'Hara's (1997) plea for research into interest rate markets using high frequency data. The paper employs high frequency bid/ask quote data from the interbank bill market and best bid/best ask data on the bill futures contract. Both data sets are provided by Reuters. The implied forward rate model is used to generate theoretical bill futures yields from the bill market quote data. All transaction costs faced by arbitrageurs are taken into account. The implied forward rate model is found to give biased estimates of the bill futures yield. However the bias of -2 basis points is much less than reported previously (eg. Lang and Rasche, 1978) and is not economically significant. Quasi-arbitrage opportunities are scarce and much less profitable than documented in prior studies (eg. Elton et al., 1984). However, synthetic bill opportunities are more numerous although the gains are small, generally less than 1 basis point. Both the number and average profitability of quasi-arbitrage opportunities decline when execution lags are introduced but the declines are not statistically significant. The results also suggest that arbitrage opportunities are not generally available to arbitrageurs without access to the interbank bill market. Overall, the bill futures market is highly efficient with respect to quasi-arbitrage opportunities but less efficient with respect to synthetic bill opportunities. This finding is broadly similar to those documented in studies of arbitrage in the foreign exchange (eg. Rhee and Chang, 1992) and stock index futures markets (eg. Lim, 1992) (JEL G13).

Keywords: arbitrage, interest rate futures, mispricing.

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# Stakeholder Conflict : The Case of Trusts

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The potential for stakeholder conflict has previously been studied in the context of the equity holders and debt holders in the corporate organizational form. This paper considers the conflicts that may arise between the interests of the income beneficiaries and the capital beneficiaries of a trust, where the trust is the sole shareholder in a company. If the company operates as a successful business then it would be expected that, in general, both the income and capital beneficiaries would become better off. However, the paper shows that the company could adopt policies that would have the effect of increasing the wealth of the income beneficiaries of the trust at the expense of the capital beneficiaries, or vice versa. The policy areas in which such results could arise are: dividend policy, risk policy, capital structure choice, capitalization of expected commitments or benefits, and investment policy (JEL G30, K22, L30).

Keywords: business policy, stakeholder conflicts, trusts.

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# Geared Equity Investment Contracts: A Case Study in Financial Engineering

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Geared Equity Investments (GEI) are offered by Macquarie Bank to high-income investors in Australia and New Zealand as a controlled-risk investment in the stock market with significant benefits as a tax shield. Upon issuance, each geared equity contract has three stakeholders: 1) the investor, 2) the issuer, and 3) the tax authority. We examine the economic value of these contracts to each stakeholder. Our main conclusion is that the contract offers fair value to investors, but most of the contract's benefits as a tax shield flow through to the issuer (JEL C14, C15, G13).

Keywords: geared equity investments, option valuation, tax shield

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## A Credit Risk Model for the Valuation of Convertible Bonds

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The paper develops a valuation model for modeling risky debt and pricing credit derivatives. The model is simple to implement and its application does not require the estimation of unobserved parameters associated with the value of the firm which appear in most credit risk structural models. Furthermore, unlike most reduced-form credit risk models, the proposed model allows for the pricing of defaultable fixed income derivatives which also exhibit equity like behavior (a corporate convertible bond would be a prime example of such behavior).

Empirical evidence regarding the validity of credit risk valuation models is rather limited in the literature. The model is used to study a limited number of corporate convertible bonds and results suggest that a broader empirical analysis of the model is warranted (JEL G13, G12).

Keywords: convertible bonds, default risk, trinomial trees

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# Time-Varying Default Risk Premiums in the Eurodollar Deposit Market

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This study investigates the behaviour of default risk premiums inherent in the Eurodollar deposit market. It extends Fama (1986) by examining the time-varying default premium in a version of the conditional inter-temporal capital asset pricing setting. Eurodollar deposits are treated as default-risky bonds and Treasury bills of the US government as default-free bonds. The default premium is defined as the return difference between the 13-week Eurodollar deposit yield and the 13-week T-bill yield. The time-variation in the conditional second moments is parameterized using a bivariate GARCH model. We find evidence that default risk premiums exist in the Eurodollar deposit market and that the excess returns of an international benchmark portfolio (MSCI World Index) have power in predicting the Eurodollar risk premium. In addition, the default premiums include both a time-varying covariance risk premium and a variance risk premium. An important implication of this finding is that default risk may not be well diversified in the Eurodollar market (JEL G10, G12, G15).

Keywords: bivariate GJR-GARCH, CAPM, default risk, eurodollar deposits.

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## Market Microstructure and Market Illiquidity: An Empirical Test

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Models of price formation in securities markets suggest that private information is a significant source of illiquidity. Since illiquidity increases the round-trip trading cost of an investor, it follows that uninformed investors will demand higher rates of return for securities in which informational asymmetries are more severe. In this paper we derive a simple definition of local equilibrium and a new measure of market illiquidity. In a second time, we compare this measure with the most common liquidity measure on the French Market (JEL G14, G19).

Key words: illiquidity, local equilibrium, market microstructure.

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# Dividend Policy and the Organization of Capital Markets

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The hypothesis that dividend policy serves as a signaling mechanism and also serves to control managerial opportunism is usually supported by empirical studies showing that firms in developed countries (e.g., the U.S.) smooth their dividends as noted by Lintner (1956). However, the theoretical justification for these results largely stems from models based on arms length contracting in capital markets. In contrast, most emerging markets have a bank centered financial system, where contracting is not normally at arms length. Consequently, this paper compares the dividend policy of companies from eight emerging markets to the policies adopted by 100 U.S. firms over the same period. Strikingly, firms in these emerging markets are less reluctant to increase or decrease dividends than their U.S. counterparts. Regression results indicate that dividends are much less sensitive to past dividends and are much more sensitive to current earnings than for the 100 firms in the U.S. sample. These results support the substitute view of dividend policy on the premise that the institutional structures of these developing countries make dividends a less viable mechanism for signaling and for reducing agency costs than for their U.S. counterparts operating in more highly developed arms length capital markets (JEL G35, G32).

**Keywords:** dividends, information asymmetries, agency costs, developing countries.

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# The Ex-dividend Day Stock Price Behavior in the Athens Stock Exchange

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This paper analyzes the ex-dividend day stock price behavior in the Athens Stock Exchange (ASE) over the period 1994-1999. This market is chosen because neither dividends nor capital gains are taxed and the ASE is not associated with the microstructure effects analyzed in prior studies. Our findings show that on the exdividend day stock prices fall by less than the dividend paid. These findings cannot be attributed to tax effects. Although our evidence might be attributed to microstructure effects, we argue that the particular microstructure effects identified by prior studies may not be the determinant factors (JEL G12 G35).

Keywords: dividends, dividend puzzle, ex-dividend day.

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## MultiFractality in Foreign Currency Markets

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The standard hypothesis concerning the behavior of financial returns claims that such returns are independently and identically log-Normally distributed. The corresponding underlying stochastic process is characterized by a quantity, called the exponent of Hurst, which is related to some fractal aspects of the process itself (for instance, the statistical self-similarity, or the Hausdorff and box dimensions of its graphs); for a standard Brownian motion (sBm) this exponent is equal to 0.5. Several empirical studies have supported the independent and identical log-Normal behavior of financial returns, but many others have shown the inadequacy of the sBm. Generally, this inadequacy is caused by the presence of many outliers, nonstationarity in the variance level, asymmetry and short- and long-term dependence. To correct for this evidence, some Authors have conjectured that financial returns may be independently and identically Pareto-Lévy stable (PLs) distributed, whereas Others have conjectured that financial returns may be identically - but not independently fractional Brownian motion (fBm) distributed. Both these conjectures are characterized by exponents of Hurst which differ from 0.5. In this work we consider such non-standard behaviors of returns for both spot and (nearby) futures for five foreign currency markets: British Pound, Canadian Dollar, German Mark, Swiss Franc, and Japanese Yen. We assume that the exponent of Hurst belongs to a suitable neighborhood of 0.5, that is we assume that the stochastic process generating exchange rate returns can be PLs motion or fBm. This assumption gives a theoretical framework to verify if the so-called Fractal Market Hypothesis (FMH) can be a "reasonable" generalization of the EM. Furthermore, we also assume that the exponent of Hurst is a function of time, *i.e.*, that the stochastic structure of the foreign currency markets can vary over time. The introduction of this dynamic dimension permits the generalization of the FMH into the MultiFractal Market Hypothesis (MFMH). Briefly, the MFMH provides a theoretical framework to account for changes from "regular" phases of the capital markets to "irregular" ones and vice versa. In particular, these markets can be characterized by investors having similar or different lengths investment horizons. In the first case, because the matching between the demand and supply is (relatively) simple, liquidity and, consequently,

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"regularity" of the markets are ensured. In the second case, the opposite holds. Of course, if the Hurst exponent is equal to 0.5 for all the suitable time, then both FMH and MFMH coincides with the EMH (JEL G14, F31, C88).

**Keywords:** exponent of Hurst, foreign currency market, fractional Brownian motion, multifractal market hypothesis, Pareto-Lévy stable process.

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# The Role of Financial Instruments in Integrated Catastrophic Flood Management

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This paper examines the specifics of the catastrophic risk management problem: highly mutually dependent losses, the lack of information, the need for long-term perspectives and geographically explicit models, the involvement of various agents such as individuals, governments, insurers, reinsurers, and investors. As a concrete case we consider a pilot region of the upper Tisza river, Hungary. Special attention is given to the evaluation of a multipillar flood lossspreading program involving a partial compensation by the central government, a mandatory insurance on the basis of location-specific exposures, and a contingent ex-ante credit. We use appropriate GIS-based catastrophe models and stochastic optimization methods to guide policy analysis with respect to locationspecific risk exposures. To analyze the stability of the program, we use the strong connection between the nondifferential (possibly convex) stochastic optimization and such indicators as the Value-at-Risk and bankruptcy (JEL G22, G28, C61).

**Keywords:** adaptive Monte Carlo optimization, catastrophic risk, insurance program, ruin probability, value-at-risk.

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# Detection of Asymmetry and Estimation of Discrete-time Stochastic Volatility Models for some Asset Returns

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Asymmetric volatility is one of the most interesting qualitative features which characterise asset returns. The aim of this work is to estimate a discrete-time asymmetric stochastic volatility (ASV) model for different datasets via Quasimaximum likelihood (QML) method and, in particular, Kalman Filter technique. The basic stochastic volatility (SV) models contain an unobserved variance component, the logarithm of which is modelled directly as a linear stochastic process, as an autoregression. Unlike ARCH and GARCH models, where the likelihood function can be evaluated exactly, the likelihood function for an SV model is hard to estimate. An feasible approach is to express the model as a linear state space model with log chi-square disturbances and to use the QML method for approximating the chi-square distribution with a normal one. Since its first formulation, the SV model has been expanded to capture many of the stylized facts which characterize returns of financial assets, in particular the phenomenon of asymmetric volatility. The term is referred to the fact that the negative (positive) returns are generally associated with upward (downward) revisions of the conditional volatility. The basic SV model can easily be modified by conditioning on the signs of the returns. In this work, to assess the estimation properties of the QML approach, we, first, performed simulations using MATLAB computer language. We generated 500 samples of length N=1000 for each set of parameters. The QML estimates obtained are very close to the true values. Then, we applied the asymmetric SV model (ASV) to four individual shares taken from the NYSE and the italian MIB30, from July 1995 to June 2001. Results show a positive asymmetric effect, as confirmed by the application of the CHARN method based on local polynomial estimation to the same data. The findings support that the frantic and high activity which has been affecting the stock markets since the few past years till now, could have partially hidden the main determinant of the negative asymmetric phenomenon, the leverage effect,

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and show that quite different dynamics are currently at work (JEL C22, C13, C40).

**Keywords:** Kalman filter smoother, leverage effect, local polynomial estimation, stochastic volatility, quasi-maximum likelihood.

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# The Impact of the Psi-20 Index Futures Market's Introduction on the Conditional Volatility of the Underlying Spot Market

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This paper examines the impact of the introduction of the futures market, on the volatility of the underlying Portuguese stock market. On the 20th of June of 1996, the Oporto Derivatives Exchange starts operating and, for the first time in Portugal, a futures contract is available for transactions, specifically the PSI-20 index futures contract. The simple analysis of variance is only the first step to a later undertaking of a much more robust methodology which involves the application of a GARCH model (Bollerslev, 1986), for modelling the conditional volatility of the time series of daily returns. In addition to the effective control of the temporal dependency phenomenon, the application of a GARCH model makes possible the explicit treatment of the information and volatility relationship, formulated by Ross (1989). In this research, a modified GARCH model (Lee and Ohk, 1992) is used, with the main purpose of identifying potential changes in the mean level and structure of the conditional volatility of the Portuguese stock market, after the introduction of the PSI-20 index futures contract. The results for the Portuguese market are not identical to those generally found internationally. Firstly, we could not be so conclusive in the sense that the introduction of the PSI-20 index futures contributed to an increase of the Portuguese stock market volatility. The initial and simple analysis of variance seems to suggest a strong increase in the level of volatility. When the temporal dependency phenomenon is modelled, a decrease on the mean level of the conditional volatility is identified for the subperiod after the introduction of PSI-20 index futures. Secondly, such decrease is followed by a reduction in market efficiency, measured by its ability to quickly incorporate new information. After the introduction of the PSI-20 index futures, volatility shocks became more persistent in time. The replication of the empirical procedures based upon different restricted and consecutive periods of 200 days before and 200 days after of the introduction of PSI-20 index futures market did not, with few exceptions, produce very different conclusions from our initial analysis (JEL G14, G15).

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Keywords: conditional volatility, GARCH, index futures, information.

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# On Asset Pricing and the Bid-Ask Spread

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Amihud and Mendelson's (1986) ground-breaking model predicts an increasing and concave relation between expected return and relative spread, designated the clientele effect. In their liquidity-adjusted CAPM, Jacoby et al. (2000) positively relate expected returns to the relative spread, but with a convex relation. Extending Amihud and Mendelson's model, we demonstrate that the relation is concave and convex for highly liquid and thinly traded assets, respectively. We therefore incorporate the two opposite effects described by the two models. We use NASDAQ data to present evidence supporting the empirical implications. Our results are consistent with Brennan and Subrahmanyam's (1996) empirical results (JEL G12).

Keywords: asset pricing, bid-ask spread, liquidity.

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# Returns and Volatility at the Open: an Empirical Analysis of Nyse Specialists

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There is greater uncertainty for a specialist when a market opens after the cessation of overnight trading, relative to any other time during the day. This is because at other times, continuous order flow reveals new and instantaneous information about price and value. We examine a sample of 2,452 NYSE common stocks from May 1995, and consider whether specialist's trading strategies have the ability to influence returns, price changes and volatility during the first hour of trading.

Consistent with prior research findings, a negative relationship is found between the last return of the day and returns over the first hour of trading the following morning. Significant relationships are also found between spreads, depths and measures of price changes and volatility. These results suggest that specialists' trading style does impact on returns and volatility during the opening period of trading. Furthermore, we find that differences in price changes and volatility exist across specialist firms, even after controlling for stock characteristics and specialist behavior (JEL G10, G14, G24).

**Keywords:** delayed opening, NYSE specialists, stock returns, stock volatility.

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## A Cross-market Trade Indicator Spread Model for Stocks

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Existing trade-indicator spread models, when applied to study the spread components of a stock, confine the source of adverse information to the trade flows observed in the stock market. Motivated by the research findings that information-based trading does not occur preclusively in the stock market and options are not redundant securities, this paper demonstrates how one can construct and incorporate an aggregate option trade indicator into the existing spread models. The new model aims to fully capture the adverse information revealed by the trade flows in both the stock and options market (JEL G12, G14).

**Keywords:** bid-ask spread components, information asymmetry, trade-indicator spread model.

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# A Cross-Country Comparison of Full and Partial Venture Capital Exit Strategies

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This paper considers the issue of when venture capitalists (VCs) make a partial, as opposed to a full exit, for the full range of exit vehicles. A full exit for an IPO involves a sale of all of the venture capitalist's holdings within one year of the IPO; a partial exit involves sale of only part of the venture capitalist's holdings within that period. A full acquisition exit involves the sale of the entire firm for cash; in a partial acquisition exit, the venture capitalist receives (often illiquid) shares in the acquiror firm instead of cash. In the case of a buyback exit (in which the entrepreneur buys out the venture capitalist) or a secondary sale, a partial exit entails a sale of only part of the venture capitalist's holdings. A partial write-off involves a write down of the investment. We consider the determinants of full and partial venture capital exits for all five exit vehicles. We also perform a number of comparative empirical tests on samples of full and partial exits derived from a survey of Canadian and U.S. venture capital firms. The data offer support to the central hypothesis of the paper: that the greater the degree of information asymmetry between the selling VC and the buyer, the greater the likelihood of a partial exit to signal quality. Consistent with Black and Gilson (1998), Jeng and Wells (2000) and Cumming and MacIntosh (2001), the data indicate international differences in venture capital exit strategies. The data highlight the impact of legal and institutional factors on exit strategies across countries(JEL G24, G28).

Keywords: exit strategy, regulation, venture capital.

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# Capital Market Integration and Industrial Structure: The Case of Australia, Canada and The United States

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Using a matched sample design where companies are matched by size and industry from Australian, Canadian and US capital markets, we investigate whether capital market integration varies across industries. The tests are conducted in the Capital Asset Pricing Model and multi-factor pricing frameworks over the 1983-1992 period. Our evidence supports two main findings. First, global industry stocks such as oil and mining stocks are priced in a relatively integrated capital market while regional industry stocks such as consumer and capital goods stocks are priced in segmented markets. Second, Australian stocks are priced in different markets than their Canadian and US counterparts. Evidence suggests that the pricing of Canadian stocks occurs in a regionally integrated North American stock market rather than in a global market. This evidence supports the notion that economic and trade linkages are a dominant factor in international asset pricing (JEL G12, G15).

Keywords: industrial structure, integration, multi-country study, segmentation.

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# The Scrutinized-Firm Effect, Portfolio Rebalancing, and the Pervasiveness of the January Effect in Canada

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This paper examines whether seasonality is also present in the returns of low risk Canadian firms in safe industries for a sample of firms that are highly scrutinized and visible and used such tests as the foundation to empirically test competing explanations of stock market seasonality, namely, the tax-loss selling hypothesis and the gamesmanship hypothesis. The tests covered the period 1980 to 1998. The paper documents that seasonality in returns is not a phenomenon observed only for small firms' stocks. For a sample of highly scrutinized and visible firms strong seasonality in excess returns is reported. However, the firms in our sample have unusually low excess returns in January and returns adjust upwards over the remainder of the year. The results hold even after we control for various risk differences among the stocks of our sample. Further, this paper's findings imply that the January Effect is not as pervasive across risk classes and industry sectors as earlier studies using aggregate data have shown it to be. Generally, only high beta, low bond rating companies, especially in five industry sectors, namely, Paper and Forest, Industrial Products, Consumer Products, Metals and Minerals and Financial Services, experience a strong January Effect. Explanations for observed seasonal patterns in stock returns can be evaluated in light of these findings. The tax-loss selling hypothesis asserts that high returns in January on small firms results from selling pressure at year end by individuals. We expect no seasonality in the stock price of well known, generally larger firms, if the hypothesis explains seasonal patterns. However, under the gamesmanship hypothesis, we would expect to see the seasonal pattern reported in this paper for highly scrutinized firms. The disaggregated data of this study provided evidence in support of the gamesmanship hypothesis. Whenever a January effect is observed, the last quarter of the year tends to be weak for those companies in our sample that experienced a strong January. The opposite is true when a January effect is not evident. Companies with low risk and high quality, in low risk sectors of the economy, tend to have weak January effect but a strong last quarter of the year (and vice versa), as the gamesmanship hypothesis would predict. The evidence provided in this paper is consistent with other Canadian (see Athanassakos and Schnabel (1994)) and US (see Cuny et al. (1996)) studies of the gamesmanship hypothesis, which used different data bases and methodology to test for the gamesmanship hypothesis and the January Effect (JEL G14, G12, G11).

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**Keywords:** firm-visibility, gamesmanship hypothesis, January effect, tax-loss selling hypothesis.

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#### Monetary Policy Rules in Practice: Evidence from New Zealand

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We use the ten years of experience in inflation-targeting in New Zealand since 1989 to test whether monetary policy appears to conform to the simple rules that have been recommended for it in the literature. New Zealand has both the longest experience and probably the most clearly defined target and policy framework for achieving it. We show that while a Taylor rule with the standard parameters used in the US does indeed describe New Zealand monetary policy quite well, the Reserve Bank has focused rather more strongly on price stability, as required by its Policy Target Agreements. However, while the conduct of New Zealand monetary policy as set out in the Monetary Policy Statements is firmly based on targeting the inflation rate in the future we find, using the Bank's own forecasts, that nevertheless inflation close to the present appears to be a good description of policy. Furthermore, restricting the description of policy to the information available to the Reserve Bank at the actual time of policy settings does not result in a much improved explanation of its actions. We find a clear 'smoothing' element to the Bank's policy rather than immediate response to every small fluctuation. We show further that some of the variables that enter the policy rule have slightly asymmetric cycles. From symmetric and asymmetric cointegration tests on the long-run relationship between interest rates, the output gap, and inflation we show that there is insufficient evidence to suggest that monetary policy has been asymmetric in treating upside inflationary pressures differently from those towards deflation (JEL E52, E58).

Keywords: asymmetry, inflation targeting, monetary policy, New Zealand, Taylor rule.

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#### When Will a Cross Hedge Work?

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This article establishes that a cross hedge reduces risk *ex ante* whenever the absolute value of the correlation between price changes of the asset to be hedged and the hedging instrument exceeds  $\sqrt{2/2}$ . The only required assumptions are parameter stationarity and a zero intercept in the appropriate regression of price changes. How well the rule works in practice depends on the extent to which these conditions are violated. In-sample tests find the rule works remarkably well, correctly predicting whether or not a cross hedge will be successful *ex post* in 125 of 126 cases considered. Out-of-sample tests were not quite as promising, but nevertheless , when the rule is followed, the specified *a priori* hedges are over three times as likely to reduce risk as increase it, and when they reduce risk they do so by about twice as much as when they increase it (JEL G13).

Keywords: cross hedge.

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# Corporate Governance and Business Cycles In the G-7 Countries: Do Institutions Really Matter?

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Research in corporate governance indicates that the relational framework within which firms make business decisions is very different across countries and these differences might be important in explaining differences in real economic phenomena such as growth rates in real output. On the other hand, research in business cycles indicates that many of the stylized facts of business cycles—themselves the result of business decisions that corporate governance presumably influences—are qualitatively similar. The objective of this paper is to see in what ways business cycles are similar and in what ways they are different across the G-7 countries, and whether any differences are related to differences in corporate governance and ownership structures. This research finds that business cycles across the G-7 countries tend to be more similar when comparing economic relationships from the product market where competition and the macroeconomic environment seem all important. On the other hand, business cycles are less similar across the G-7 countries when comparing certain financial relationships, and in certain cases these differences are related to differences are market where competition and the macroeconomic environment seem all important. On the other hand, business cycles are less similar across the G-7 countries when comparing certain financial relationships, and in certain cases these differences are related to differences in corporate governance and ownership structures (JEL E3, G3).

Keywords: business cycles, corporate governance, finance, G-7.

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#### Financial Convergence and Financial Governance

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This paper compares systems of financial governance for financial institutions entering new product and geographic markets. We analyze this scenario using four complementary theories of financial organization, those being the comparative financial systems approach of Allen and Gale (2000), the functional approach of Crane et al. (1995), the decision rights approach of Jensen and Meckling (1998), and the transactions cost economics approach of Johnson and Neave (1995). We then produce a synthesis of these theories. Our theoretical analyses are applied to the case of Canadian banks entering US markets, but the results are generalizable to any aspect of financial systems (JEL G15, G21, G30).

Keywords: financial governance, international finance, transactions cost economics.

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# Corporate Ethics and Shareholder Wealth: Does it Pay to Be Green?

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This study examines the stock price performance of companies relative to a measure of their corporate social responsibility. Information regarding social responsibility or business ethics was derived from the data set of KLD (Kinder, Lydenberg, and Domini), a firm that specializes in researching and analyzing the corporate social performance or responsibility of major corporations using categories such as environment, community, diversity, and employee relations. First, we find that ethics scores tend to be related to industry. Since market returns can be strongly correlated to the industry, our empirical analysis attempts to adjust for industry type. We find that stock price performance is highest for firms experiencing an increase in ethics scores. We also find that those firms with high ethics scores tend to outperform firms with continued low or median ethics (JEL L21).

Keywords: ethics, stakeholders, shareholder wealth maximization.

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### Information Content of Seasoned Equity Offerings

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This study analyzes the market reaction to seasoned equity offering announcements by Turkish firms. Financial theory suggests that when managers have a number of financing alternatives and choose equity as the preferred source of funding, the investors interpret this decision as a negative signal regarding the future of the firm. At the other extreme, when a firm's financing alternatives are limited, the market participants may not perceive the announcement of a stock offering as a negative signal. In developing economies alternative sources of capital are usually limited, and therefore, analysis of market reaction to stock offering announcements in such economies may yield results different from those in developed economies. In this study, a total of 202 firms are represented in the sample with a total of 500 seasoned equity offerings carried out between 1994 and 1999. The first part of the analysis examines the market's reaction to announcements through which various types of information about the equity offerings reach the market. The results show that in general the market reaction to these announcements is significantly negative. The negative announcement effects are consistent with the predictions of the pecking order hypothesis and imply that market participants perceive the decision to issue additional equity as an unfavorable signal about the future prospects of the firm. Even though firms in Turkey may not have many alternatives for financing, it seems that the market reaction to equity offering announcements is still negative. One relevant observation is the fact that most of the time the firms synchronize their equity offerings and dividend payments and use the proceeds from the offering to pay the dividends. Under such a scenario, the shareholders are ultimately providing the cash for the dividend payments that they will receive. In this case, it is not surprising to find a negative reaction to seasoned equity offering announcements, especially if they are coupled with dividend announcements. The second part of the analysis evaluates the long run stock return performance of the firms involved in seasoned equity offering. The results demonstrate that these firms underperform the market and their respective sectoral indexes over the 24 weeks immediately following the equity offering. This is another finding consistent with

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the pecking order argument that only those firms with overvalued shares raise additional equity as a source of financing and therefore, these firms are expected to perform poorly over the longer run following the offering (JEL C23).

Keywords: event study, pecking order, seasoned equity offerings.

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# Stock Index-Linked Debt and Shareholder Value : Evidence from the Paris Bourse

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French banks and nonfinancial companies issue index-linked debt whose value at maturity is indexed to the CAC 40 or to a basket of European indices. This paper examines stock announcement effects associated with these bonds on three dates: the date the issuer's General Assembly decides on the coming capital needs, the publication of the issue in the journal of the COB (the stock market board), and the issue date. We find the issuance of index-linked debt has significant positive announcement effects on the issue date, which we attribute to the market-completion attributes of this debt in France (JEL G14,G15,G30).

Keywords: announcement effect, index-linked debt, market completion.

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## Scenario Optimization Asset and Liability Modeling for Endowments with Minimum Guarantees

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Endowments with a minimum guaranteed rate of return appear in insurance policies, pension plans and social security plans. In several cases, especially in the insurance industry, such endowments also participate in the business and receive bonuses from the firm's asset portfolio. In this paper we develop a scenario based optimization model for asset and liability management of participating insurance policies with minimum guarantees. The model allows the analysis of the tradeoffs facing an insurance firm in structuring its policies as well as the choices in covering their cost. The model is applied to the analysis of policies offered by Italian insurance firms. While the optimized model results are in general agreement with current industry practices, inefficiencies are still identified and potential improvements are suggested.

The modeling tools developed for the management of insurance policies are also used to develop a web-based system for individual investors. Investor's goals and risk profiles are addressed in an integrated fashion. The requirements for real-time modeling by the average investor must be reflected in the model, and this issue will be discussed as well. The practical experience with this model will be discussed (JEL C61, C63, G22).

**Keywords:** asset/liabilitymanagement, insurance, participatingpolicies, scenario modeling.

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#### An Affine Model for International Bond Markets

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We present and estimate a parsimonious continuous-time multi-factor affine term structure model for the joint term structure dynamics of interest rates across countries. We extend the standard affine models by focusing on joint markets and by incorporating the exchange rate dynamics in the estimation procedure. Estimation is done by means of a Kalman filter algorithm and quasi maximum likelihood. We find that our particular three factor model is rather successful in fitting bond correlations, both within and between national bond markets. Moreover, the model sheds light on two of the most persistent puzzles in empirical international finance, i.e. the forward premium puzzle and the (bond portfolio) home bias puzzle. First, our model implies that deviations from uncovered interest rate parity are to be rationally expected in our model due to the existence of risk premia. Second and in line with Baillie and Bollerslev (2000), we find that the forward premium can be considered to be a statistical artefact due to the extremely slow convergence properties of the estimator towards the asymptotic distribution function. With respect to the home bias puzzle, the model allows to test for international diversification gains in unhedged bond return portfolios, conditional on information that is present in the joint term structure of both countries. We find that exchange rate risk is sufficiently priced such that the inclusion of foreign bonds allows for an improved risk-return trade-off from the perspective of a U.K. investor (JEL C33, C22, E43).

**Keywords:** forward premium anomaly,international diversification, Kalman filter, multi-factor affine term structure model.

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#### Pricing Bonds with the Semi-Lagrangian Time Integration Method

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The objective of this paper is to introduce a numerical method that is not yet applied in finance. We compare the semi-Lagrangian time integration scheme to other finite difference methods in terms of their stability and accuracy in pricing options on pure discount bonds. Results reveal that the numerical method presented in this paper is unconditionally stable and ensures that no numerical inaccuracies are contained in the numerical solutions. In terms of accuracy, the semi-Lagrangian time integration scheme yield smaller errors than competing alternatives across all strikes and maturities. Exception to this result is the case of medium term out-of-the money options (JEL G13, C63).

## **Keywords:** bond options, pricing bonds, pricing, finite difference methods, semi-Lagrangian.

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## Further Evidence on the Predictability of U.K. Stock Returns

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This paper presents evidence on the predictability of U.K. stock returns using a newly constructed database of companies in the FTSE-Allshare index at the beginning of 1998. The tests used are autocorrelations at various lags and variance ratios for several aggregations of base observations. The evidence is consistent with that published for US stock returns, namely that daily stock returns contain a strong element of predictability. Moreover, the results are largely robust to the Chow and Denning critique of the interpretation of the critical values of the test statistics used to interpret the variance ratios. However, it is argued that the fact that daily stock returns contain an element of predictability is of little practical significance for the process of investment management. (JEL C80, C87, G10).

Keywords: autocorrelations, U.K. daily stock returns, variance ratios.

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#### The Impact of Commodity Price Risk on Firm Value

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Given the fact that commodity prices are more volatile than exchange rates and interest rates, commodity price risk represents a priori a more important source of risk to corporations. Consequently, this paper presents a comprehensive analysis of the economic commodity price exposure of a large sample of nonfinancial firms. The results indicate that corporations exhibit moderate net exposures with regard to several commodity prices. Even though commodity prices are very volatile, commodity price risk is not found to be of greater importance than other financial risks, possibly because fewer cash flows are affected by commodity price movements or because of corporate hedging (JEL G3, F4, F3).

Keywords: capital markets, commodity prices, corporate finance, exposure, risk management.

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#### Yahoo! for Amazon: Opinion Extraction from Small Talk on the Web

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With the advent of the web, there has been a sharp increase in the influence of individuals on the stock market via web-based trading and the posting of opinion to stock message boards. While it is important to capture this "sentiment" of small investors, as yet, no index of sentiment has been compiled. This paper comprises (a) a technology for extracting small investor opinion from web sources to create an index, and (b) illustrative applications of the methodology. We build algorithms to extract opinions and construct a "sentiment" index from stock message boards, making use of computerized natural language and statistical algorithms for the automated classification of messages posted on the web. We used a set of classification algorithms, each of different theoretical content, with a view to characterizing the opinion of any single posting to a message board. The use of multiple methods allows imposition of voting rules in the classification process. It also enables elimination of "fuzzy" messages that are better off left un-interpreted. A majority rule across algorithms vastly improves classification accuracy, but also leads to a natural increase in the number of messages classified as "fuzzy". The classifier achieves an accuracy of 62% (versus a random classification accuracy of 33%), and compares favorably against human agreement on message classification, which was 72%. The technology is computationally efficient, allowing the access and interpretations of thoU.S.A.nds of messages within minutes. Our illustrative applications show evidence of a strong link between market movements an opinion. Based on approximately 25,000 messages for the last quarter of 2000, we found evidence that opinion is based on stock movements. The methodology is easily extendable to other domains. This "new method for a new age" looks promising for public opinion research (JEL G14, G19).

Keywords: statistical language processing, sentiment.

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## On Capital Structure in the Small and Medium Enterprises: the Spanish Case

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The principal aim of this paper is to test the relevance of the different financing theories for explaining capital structure choice in the Small and Medium Enterprises (SMEs) sector. One of the areas of financial theory that has worried much to academicians and professionals is debt policy decisions in companies. Although there are many previous empirical studies about financing decisions of large and listed companies like Barclay et al. (1995) and Shyam – Sunder and Myers (1999), the scientific community has only started to pay attention to the small firm sector much more recently. Investigations such as Van der Wijst (1989) or Michaelas et al. (1999) have set up the basis for the development of a line of research on capital structure in SMEs. In the Spanish context the research is still at its initial phases although some wok has been done recently in this sense like Ocaña et. al (1994), Boedo and Calvo (1997) and López and Aybar (2000). In order to shed more light over this issue we carry out an empirical analysis over a panel data of 3962 non - financial Spanish SMEs for the period 1994-1998. The panel data methodology that we use controls for firm heterogeneity and reduces collinearity among the variables that are considered. Our results show that the financing decision in this sort of companies can be explained by the main capital structure theories: Fiscal Theory, Trade – Off Theory and Pecking Order Theory. Among all these theories, some caveats are worth to be stressed and the hierarchically theory seems to fit completely in the explanation of SMEs debt policy (JEL C23, G32, G33).

**Keywords:** capital structure, pecking order theory, SME, panel data, trade – off theory.

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## Liquidity and Volatility: Lessons from Price Bubbles and Market Crashes in Southeast Asia

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In this paper, we provide comparative analysis of the listed firms in three Southeast Asian countries, namely, Indonesia, Malaysia, and Thailand. We draw broad lessons that would be helpful to understand the market behavior under deep financial crisis. We have chosen the three stock markets that had experienced the most violent fluctuations in Southeast Asia, namely Indonesia, Malaysia and Thailand, for a more in-depth study. Several new results are found: 1) There were local price bubbles prior to the market crash in each country; 2) The price bubbles in these countries were all among the most liquid and most volatile shares; 3) Liquidity was revealed to behave differently in quiet versus extraordinary period; 4) Price momentum may contribute to the share price increase prior to the crash but not during period of crisis or market reversal. (JEL D84, C14, C15).

Keywords: Asian crises, liquidity, price bubbles, volatility.

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## Size and Book-to-Market Factors and the Predictability of Industry Returns

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This paper examines the ability of the Book to Market (B/M) factor and the Size factor to predict future market returns, in the context of the arguments of Fama and French (1993) that these factors measure forms of risk in the stock market. It further explores whether there is any differentiation in the predictive ability of the B/M and size factors across twenty-six Australian industry sectors. Results indicate that while the size factor has virtually no predictive ability, the B/M factor has significant predictive ability in fifteen industry sectors (JEL G1, G12, G20).

Keywords: book-to-market factor, industry returns, return predictability.

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## Is the Source of Foreign Direct Investments Important to Emerging Market Economies?Evidence from Japanese and U.S. FDI

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Relying on the earlier contributions by Romer (1990), this paper takes the position that economic output in developing countries depends on the technology transfer they receive from foreign direct investment inflows (FDI). Furthermore, this paper posits that the technology transfer, *ceteris paribus*, depends not only on the FDI inflows but also on the attributes of FDI providers. These attributes vary among FDI providers, particularly as they relate to the degree of technological advancement and the behavioral aspects of the technology transfer. Japan and the United States are two important sources of FDI where multinational corporations domiciled in the two nations exhibit distinct variation in these attributes.

Consistent with earlier studies, the findings of this study lend support for a positive role of FDI inflows from the advanced countries in increasing the economic output of developing countries. The paper further finds that the relationship between the economic output of the host countries and FDI inflows is stronger for US originated FDI than that of Japanese originated FDI. This finding is consistent with the notion that US multinational firms (MNCs) are more effective in generating technology transfers and spillovers to developing countries than do Japanese MNCs.

The paper also suggests that differences in corporate culture and the technology level between MNCs in the two major FDI providing countries, the U.S.A. and Japan, are reflected in the differential influence of FDI on the economies of the recipient countries (Urata (1996) and Sedgwick (1996)). This gives some support to the contention in the extant FDI literature that Japanese MNCs do not possess the R&D based firm-specific intangible assets in comparison to U.S. MNCs, and thus, the potential for Japanese FDI to function as a vehicle for increasing the skill level of the host economy is not as effective as U.S. FDI. (Eaton and Kortum (1996) (JEL F210, F430, O000).

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**Keywords:** economic development, emerging markets economies, foreign direct investments, technology transfer.

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# The impact of Japanese Yen and the equity markets of the US and Japan on the emerging Asian equity markets

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This paper examines the impact not only of the Japanese yen but also of the U.S. and Japanese equity markets on eight Asian emerging markets, which are Hong Kong, South Korea, Singapore, Taiwan, Malaysia, Philippines, Thailand and Indonesia. Applying a VAR (Vector Autoregression) model, I find that the U.S. equity market plays a more important role in the Asian equity markets than the Japanese equity market and the Japanese yen do (JEL G1).

**Keywords:** Asian emerging markets, Japanese yen, U.S. and Japanese equity markets, VAR.

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#### Corporate Size and Changes in Japanese Corporate Financing

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A long term condensed picture of changes that occurred in some selected assets and liabilities of the Japanese corporate business suggests that the Japanese financial liberalization has had a meaningful impact on both Japanese corporate balance sheets and on Japanese sourcing of funds. The Japanese corporate liquidity holdings and long term financing have been markedly altered. As the financial deregulation gained full swing, medium and small corporations have seen their holdings in certificate of deposits soar to unprecedented levels. In terms of corporate size, the first section and the second section corporations have substantially reduced their long-term borrowing and their interenterprise credits. However, it is the big, stable, and less risky manufacturing corporations, as predicted by the recent theories of capital structures, which are taking advantage of the competitive loans. These mega corporations rely more on bonds and equity issues as attractive alternative sources of financing than on bank borrowing (JEL G1, G3, N2).

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**Keywords:** Japanese corporate business, the Japanese financial liberalization, the first section and the second section corporations,

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## The Impact of Price Limits on Initial Public Offerings: Evidence from the Taiwan Stock Exchange

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This paper is the first to examine the impact of price limits on IPOs. In essence, the impact can be categorized into underpricing, price discovery, volatility, and trading activity. Using the IPO data (1989-2000) from the Taiwan Stock Exchange, we find that the internationally comparable underpricing is 51.69% and, on average, it takes 6.24 days for IPOs to reach their equilibrium prices. The volatility spillover hypothesis, which states that price limits cause higher volatility levels on subsequent days, is supported by limit hits before the equilibrium price was reached, but it is rejected after the equilibrium price was reached. The trading interference hypothesis, which implies that trading activity will be intensified on the days following the limit-hit day, is supported by limit hits before the equilibrium price was reached. Evidence also indicates that the impact of price limits on IPOs is more significant before the equilibrium price was reached than after that was reached from both the volatility and the trading activity perspectives (JEL G14, G15, G18).

**Keywords:** initial public offering, price limit,, price discovery, trading activity, volatility.

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#### How Competition Corrects IPO Mispricing: Fixed Price Vs. Auction

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This study tests the effect of a regulatory change on the Tel-Aviv Stock Exchange unleashing the force of competition to ameliorate the systematic underpricing of IPOs. Using data of 94 observations surrounding the 1993 event, we compare the extent of underpricing under two nondiscriminatory auction regimes: the old regime tightly restricting the offer price between fixed maximum and minimum limits, and the new regime permitting only a minimum price limit. We successfully test the hypothesis that the removal of a maximum price constraint increases pricing efficiency by eliminating the underpricing bias and otherwise increasing the pricing accuracy of the individual IPO. Our findings suggest that post-IPO positive returns common to markets using a single offer price are caused by systematic underpricing through an uncompetitively low offer price acting as a binding maximum price (JEL G14, G18, L12, L51).

Keywords: event study, IPO, pricing regime, underpricing.

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## Corporate Leverage and Unanticipated Industry Growth: A Test of the Myers Conjecture

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This study tests the Myers underinvestment conjecture concerning the relationship between leverage and corporate value. The prior literature is extended on three dimensions. First, it is shown that the Myers underinvestment conjecture is dependent upon the ability of capital market participants to anticipate growth opportunities. In particular, leverage is shown to have a much greater detrimental affect on firm performance if growth opportunities are *unanticipated* than if growth opportunities are anticipated. This observation drives the essential empirical tests in this study. Second, growth is defined and analyzed from an industry perspective. As a consequence, this study sheds light on the question: Does financial leverage have an adverse effect on the firm's ability to capture *unanticipated* industry-wide growth opportunities? Third, this study adopts an empirical methodology that controls for reverse caU.S.A.lity as well as ensuring that the growth opportunities are unanticipated. Consistent with the Myers conjecture, we find empirically that leverage is negatively associated with firm value. Contrary to the Myers conjecture, however, we also find that leverage is negatively associated with firm value even when industry growth is anticipated or when there is no industry growth at all.

We also examine if research and development (R&D) intensity, assumed to proxy for the firm's growth options, mediates the relationship between financial leverage and firm value. We find that the adverse effects of debt on firm performance are much more severe for firms with higher R&D expenditures, as conjectured by Myers. Again, contrary to the Myers conjecture, this adverse effect of leverage is present even when growth opportunities are anticipated.

We also investigate the effect of industry competition on the firm's ability to exploit industry-wide growth opportunities in the presence of financial leverage. We find that higher levels of debt appear to affect adversely the productivity of firms operating primarily in less concentrated product markets. This result suggest that highly levered

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firms in more concentrated markets benefit from entry barriers and are able to preserve their existing market share and profitability despite the leverage (JEL G32, D92, E22).

Keywords: competition, growth, R&D, underinvestment.

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## The Adjustment of Earnings Forecasts to Information Inferred from Stock Split Announcements

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Firms manage the unit price of their common stock by executing stock splits. Although stock splits produce no direct increase in the firm's cash flows, abnormal stock returns are observed following announcements of stock splits. Clearly, split announcements release new information about the firm. In this article, we investigate the particular nature of that information. We analyze monthly forecast revisions derived from analyst earnings forecasts for the current-year earnings and the five-year growth in earnings. By using these forecast series, we able to directly test the impact of split announcements on near-term earnings expectations and long-term earnings expectations. We report several findings: (1) Stock splits are preceded by a period of rising expectations for near-term earnings that persist for roughly one year following the split announcement. The changes in expectations for near-term earnings are not related to the stock splits. It is likely that stock splits are merely coincident with rising expectations for the firm's near-term earnings prospects. (2) No changes in long-term earnings expectations are observed immediately following the announcements for stock splits in general. We do find statistically significant increases in long-term earnings expectations following stock split announcements made by NYSE/AMEX listed firms and for stock splits not proceeded by other stock splits. (3) We find no strong evidence that relates the stock price reaction following the stock split announcements to revisions in earnings forecasts. (4) The size of the earnings revisions following split announcements, near-term and long-term, is inversely related to the size of the firm. Announcement period revisions in earnings forecasts are not related to the either the stock split's target price or the split factor, characteristics of stock splits that are significantly related to announcement-period stock returns. The absence of strong evidence for a stock split-induced change in analysts' forecasts lead us to conclude that stock splits are not executed with the primary purpose of signaling management's assessment of the firm's future earnings. Our findings therefore provide indirect support for the optimal pricing theory of stock splits (JEL G35).

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Keywords: stock splits, signaling, analysts' forecasts.

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## A New WACC with Losses Carried Forward for Firm Valuation

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Finance teachers and textbooks (see Benninga, and. Sarig.,1997, Brealey, Myers and Marcus, 1995, Copeland, Koller and Murrin, 1995, Damodaran, 1996) teach that the present value of the free cash flow at the weighted average cost of capital less liabilities should be identical to the cash flow to equity discounted at the cost of equity capital, e. But usually, even though the cost of capital and the cost of equity are changing in time, the two cash flows are discounted at constant rates, and, at best, calculated with debt equity ratios based on book values.

In this paper the relationship between firm values calculated through the two cash flows are examined. Several examples and approaches (see Harris and Pringle, 1985, Miles and Ezzell, 1980, Ruback, 2000, Taggart, 1991.) are presented. It is shown that when market values are used to calculate the cost of capital and e, results are consistent. An adjusted version of the textbook formula for the cost of capital is presented. It takes into account the actual tax savings through recognizing the losses carried forward. It is shown that the total firm value calculated with the free cash flow and the WACC coincides with the total firm value calculated with the Adjusted Present Value approach from Myers (1974) for finite lives. This means that the original M&M proposal of total firm value equal to the unlevered firm value plus the discounted value of tax savings is consistent when the tax savings are discounted with the cost of the unlevered equity, rho (JEL D92, E22, G12, G31, M40, M41, M46).

**Keywords:** cash flow to equity,CFE, cash flow to debt, CFD, discounted cash flow, DFC, firm valuation,free cash flow, FCF, NPV.

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## Successful Business Develpment Strategies for Canadian Corporations: The Role of Intangible Assets in International Markets.

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#### Alfred H. R. Davis\* Queen's University, Canada

In the exploding high technology market, intangibles are more likely to take on increasing importance. This study provides empirical evidence for intangible factors identified as potential success drivers for business development strategies that take the form of strategic alliances. We provide evidence that establishing strategic relationships creates value for the shareholders of both of the partnering firms. A very important result from this study is that international strategic alliances have a positive impact on our overall sample, while domestic agreements do not. Thus our results support the notion that foreign expansion decisions can provide additional advantages such as increased growth opportunities to Canadian firms, fuelling their rapid expansion. In addition, the results provided in this study show that benefits might come from a multinational network of strategic alliances. Our results for alliances are much higher on the announcement date than those of international acquisition studies, thus providing evidence supporting the theory that strategic alliances can bring additional value through the organizational flexibility they provide. The study also confirms that Canadian firms create more value by forging alliances with partners from a developed country rather than entering into an agreement with a firm in an under developed country. Intangible characteristics are also linked to the success of strategic alliances as firms in industries with a higher technological level generate returns that are more significantly positive than those returns of firms operating in a low technology industry. Growth opportunities, brand strength, sales force, technological knowledge, competence of management, activities relatedness, partners' commitment, market power and country-specific variables are related to the performance of international strategic alliances. An important contribution of this paper is that, while testing of the internalization theory was previously done for cross-border acquisitions, this study extends the evidence to strategic partnerships (JEL F23, G32, G39).

**Keywords:** growth opportunities, internalization, international, intangible assets, strategic alliances.

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#### Country Funds: a Channel for Emerging Equity Markets Integration

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This paper examines the financial links of a group of Pacific-Basin countries (Hong Kong, South Korea, Malaysia, Singapore, Taiwan and Thailand) with U.S. and Japan by estimating the multivariate cointegration model in both the autoregressive (see Kasa, 1992) and moving average forms (see Johansen, 1991 and Gonzalo and Granger, 1995) over the period 1980-1998. The former allows us to examine the long-run relationships of these markets, and the latter the potential drivers of the system. Finally, the recursive analysis helps to identify the evolution of integration of these markets (see Hansen and Johansen, 1998). Our main findings are as follows:

First, we found lack of integration amongst all the countries under investigation, both during the eighties and nineties, and for the open capital markets of Hong Kong, Malaysia and Singapore during the eighties. This evidence, which is in accordance with previous studies on the capital markets integration of the Pacific Basin Rim suggests that the relaxation of foreign exchange restrictions is not sufficient to attract international investors' attention and strengthen international market interrelations. There exist other factors affecting the portfolio diversification decision. On the other hand, the increase in financial links for open and semi-open markets in the second sub-period suggests that the relaxation of foreign ownership restrictions might have enhanced financial links with world markets.

Secondly, we found strong financial links for Taiwan and Thailand with both Japan and U.S., during the first sub-period in which foreign ownership and other restrictions were in place. The results of the recursive analysis detect that the first forms of integration correspond to the period of the introduction of First Country Funds. This underlines the importance of alternative financial instruments to access emerging equity markets and increase their financial links with world markets.

Thirdly, the recursive analysis for the most recent period indicates that the Asian crisis did not have a substantial effect on the degree of integration of these markets.

Finally, the estimated common trends mechanisms show absence of a dominant country in the region. Neither Japan, nor the U.S. has a unique influence in the Pacific Rim. U.S. plays a role, but small in magnitude, while Japan plays a more significant role, but is equally important as that of Thailand.

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In conclusion, the results indicate that international investors still have opportunities for portfolio diversification by investing in most of the Pacific Basin countries. Even the group of countries, which are integrated at the global level, can still present possibilities for portfolio diversification in the short-run due to substantial transitory fluctuations (JEL F36, G15).

Keywords: emerging markets, capital market integration, common stochastic trends.

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#### Is the 'perfect' timing strategy truly perfect?

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In the presence of transaction cost, the 'perfect' timing strategy which holds stocks in a period with positive excess return and holds cash in a period with negative excess return is not necessarily perfect. Using the optimal growth criterion, this paper derives the truly perfect timing strategy which can achieve the maximum long term growth. It is found that such a perfect timing strategy can achieve a much higher annual return than the 'perfect' timing strategy under reasonable transaction cost. Also, it can achieve a return of over eighty percent when a review period is as short as a day and when transaction cost is low. Using the truly perfect timing strategy as a benchmark, the likely gains from imperfect timing can be more accurately assessed. For a less frequent review schedule, a market timer needs a very high correct prediction probability in order to be at par with the buyand-hold strategy. However, the needed correct prediction probability is much less when the review schedule is more frequent. Also, for a market timer with a given predictive ability, an optimal review schedule can be obtained under a given transaction cost. It is interesting to find that the optimal review schedule can be daily, weekly, monthly, quarterly or yearly depending on the level of transaction cost and the predictive ability of the market timer (JEL G14)

**Keywords:** market timer, optimal growth criterion, perfect timing strategy, transaction cost.

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## Market Efficiency and the Returns to Simple Technical Trading Rules:New Evidence from US Equity Market and Chinese EquityMarkets

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Numerous studies in the finance literature have investigated technical analysis to determine its validity as an investment tool. This study is an attempt to explore whether some forms of technical analysis can predict stock price movement. Brock, Lakonishok and LeBaron (1992) found that simple forms of technical analysis contain significant predictive power for US equity index returns. Based on the same universe of 26 trading rules, however, Bessembinder and Chan (1998) argued that although the technical trading rules do have predictive ability in US data, their use would not allow investors to make excess returns in the presence of costly trading. To avoid using just few arbitrarily selected 26 trading rules, this paper examines predictive power and profitability of simple trading rules by expanding universe of 26 rules to 412 rules. In order to find out the relationship between market efficiency and excess return by applying trading rules, we examine excess return over periods in US markets and also compare the excess returns between US market and Chinese markets. We document that the forecast ability is partially attributed to return measurement errors arising from nonsynchronous trading before 1975, and solely attributable to the return measurement errors for the period during 1975-91. During the 1990's, however, break-even costs turned to be negative, -0.06%, even failing to beat a buy-holding strategy in US equity market. Overall, there is no evidence at all supporting technical forecast power by these popular trading rules in US equity index after 1975. In comparison, our results provide support for the technical strategies even in the presence of costly trading particularly in Chinese stock markets for institution investors (JEL G12, G14, G15).

Keywords: capital markets, emerging markets, return forecastality, technical analysis.

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#### Exchange Rate Management in Eastern Europe

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This paper develops theoretical and empirical model of exchange rate determination in transitional economies of Eastern Europe. The distinguishing feature of a model is the retention of market failures pertaining to the production and consumption of non-tradable goods and, therefore, the likelihood of real exchange rate appreciation. Using this framework, the econometric tests are performed for Slovenia, Poland, the Czech Republic, and Hungary, and appropriate macroeconomic and exchange rate policies are recommended to support further liberalization and development and of the foreign exchange market. The empirical evidence about the internal and external imbalances in Poland indicates that macroeconomic and exchange rate polices have not always been consistent with transitional goals. A fixed exchange rate regime is not compatible with the external balance goals and, in particular, it is not conducive to economic restructuring in the export sector. By maintaining a fixed exchange rate, policy-makers ignore changes in the country's internal and external balances, thereby risking misalignment of real exchange rate relative to a conditional equilibrium real exchange rate. If they adopt a crawling-peg exchange rate policy, (where the domestic currency is being devalued continuously in daily micro-steps), on the other hand, a risk of exchange rate misalignment my even be greater, particularly when inflationary supply-side shocks are dominant. The policy of managed nominal exchange rates, supported by consistent macroeconomic policies, is the most appropriate policy. Depending on the underlying macro-economic conditions in each individual country, nominal exchange rate could be allowed to fluctuate within certain margins, given that policy makers retain the discretion to adjust it in line with the postulated movement of the fundamentals. By following a managed float the nominal exchange rate conforms to those changes that support the development of market institutions and incentives, including the development of foreign exchange markets. The discretionary adjustment of the nominal exchange rate, however, remains necessary to support changes in fundamentals while the market institutions and incentives are as yet developing (JEL 431).

Keywords: exchange rate, macroeconomic adjustment, market liberalization.

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#### Efficiency Tests of the London Options Market

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Ex ante tests of the efficiency of the London options market explain alternative hedging strategies to fund managers who seek to comprehend the opportunities in the options markets and profit by potential market inefficiencies. Over and under valued options were used to form hedge portfolios, which were mostly positive indicating potential inefficiencies in LIFFE. Therefore options appear to incorporate the role of an investment strategy on their own and not only as a hedge against positions in the underlying stocks while the Black-Scholes formula proved to be an easily computed and implemented way to make abnormal, zero risk profits. This paper also confirms the ability of a weighted implied standard deviation to explain future volatility more accurately than historical volatility by use of regression analysis (JEL F3, G1).

Keywords: efficiency, hedge, implied volatility, options, portfolio.

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Please submit by **December 18, 2001**, three copies of a completed or nearly completed paper to **Multinational Finance Society, School of Business-Camden, Rutgers University, 227 Penn Street, Camden, NJ 08102-1656, U.S.A.** (856) 225-6594 (Office), 225-6632 (Fax), or e-mail an Adobe<sup>®</sup> Acrobat<sup>®</sup> PDF file to <mfs@camden.rutgers.edu>. The title page should include the affiliation, address, phone, and e-mail of each author. All participants agree to serve as a discussant of a paper of his/her own area of interest, if needed.

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UNIVERSITY OF BRESCIA 25122 Brescia, Italy Internet: www.unibs.it

The Faculty of Economics of the University of Brescia is located in the hart of the old town at the bottom of the hill topped by a mediaeval castle. Brescia has about 200,000 inhabitants and is the second town of Lombardia, the most industrialized region of Italy. Thousands of small and medium-sized firms are based in that area and the University of Brescia offers degrees specifically oriented to the labour demand coming from those firms.

The Faculty of Economics has about 1500 students and is experiencing a deep restructuring according to the guidelines given by the recent national reform involving the Italian Universities.

Starting from the next academic year the Faculty will offer three alternative triennial degrees in economics. The specific curricula will be: a) Economics; b) Corporate Management; c) Information and Communication Management. The set of alternatives offered to our students is completed by two Master Programs: The Master in Finance and the Master in Management and Economics of Medium-Small Firms. Both are one-year programs.

The final result of current restructuring will be a quite small but very modern Faculty of Economics, able to offer to the local labour market young workers having all the skills requested by local entrepreneurs as well as entrepreneurs located in other countries of the European Community. This is due to the fact that the University of Brescia is also an active part of the ERASMUS program for student mobility abroad.



#### UNIVERSITY OF VERONA

#### Via dell'Artigliere, 8 – (37129) Verona – Tel 0458028111 Internet: <u>www.univr.it</u>

The University of Verona was founded in 1982, but most of its facilities had already been in use for years as a branch of the University of Padua. This has enabled it to combine the Italian university tradition, marked by scientific rigour and cultural openness, with a modem organization receptive to the needs for personal improvement and education.

The constant increase in the number of students has been followed by a continuous adaptation and widening of the course range and of the facilities. The still reasonable size of the university of Verona (17.000 students in 2000/2001) ensures an efficient use of the facilities available and encourage the flexibility necessary to meet the changing students' needs.

It now includes 7 Faculties further subdivided into 11 Degree courses, 13 Diplomas, 1 Technical College, the School of Obstetrics, 40 Schools of Medical Specialization, 7 postgraduate specialization courses. A language center is open to all the university students who also have access to a computer network that is being constantly expanded and updated.

The University of Verona devotes special attention to the town and its territory through research projects and various forms of cooperation to enhance the mutual potential for cultural and economic growth. Specific agreements and exchanges with the industrial world are being worked out with the objective to help graduates find a job.

However, the awareness that the students' education and training must increasingly be tailored to the international situation, has led the university to increase the international cooperation programmes in research and students' mobility with several European and non-European countries and to follow this

policy as a strategic prospect of development.

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