

# 6<sup>th</sup> ANNUAL FINANCIAL MARKET LIQUIDITY CONFERENCE

19TH-20TH NOVEMBER, 2015 BUDAPEST

## CONFERENCE PROCEEDINGS

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**6<sup>th</sup> Annual Financial Market Liquidity Conference, 2015**  
**Budapest, Hungary**  
**19<sup>th</sup>-20<sup>th</sup> November, 2015**

CONFERENCE PROCEEDINGS

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## GREETINGS

I warmly welcome all the participants of the 2015 Annual Financial Market Liquidity (AFML) Conference. It is the sixth time that we are bringing together academics and practitioners to discuss state-of-the-art results in the broad field of financial market liquidity. It is the first time that we have parallel sessions and some papers will also be discussed. These topics include:

- Market Liquidity and Funding Liquidity;
- Liquidity Aspects of Systemic Risk;
- Game Theoretic Aspects of Liquidity and Financial Risk;
- Global Liquidity (both Public and Private) and Regulations;
- Leverage and Macroeconomic Determinants;
- Market Microstructure with Emphasis on Liquidity;
- Asset Pricing and Management with Illiquid Assets;
- Illiquid Alternative Investments and Asset Innovations.

All the conditions are met to build and refresh your network, since more than 130 participants have registered, and the lectures will also be visited by more than 20 selected students.

Many people have contributed to this event. First of all, I would like to thank the speakers, poster session participants and the chairs for coming, and our sponsors for providing the resources.

I wish to thank the members of the scientific committee: Zsuzsa R. Huszár, László Á. Kóczy, Imre Kondor, Niklas Wagner; and the local organizing committee: Edina Berlinger, Gábor Czigány, Barbara Mária Dömötör, Dániel Havran, László Á. Kóczy, Gábor Kondor, Anita Lovas, Balázs Márkus, Kata Váradi. Our assistants Zsuzsa Fried and Judith Andaházy also did a great job in taking care of ongoing tasks and challenges.

I trust everybody will contribute to the friendly and interactive atmosphere.

Enjoy the sixth AFML Conference and Budapest.

Kind regards,  
Péter Csóka  
Chair of the Organizing Committee

Associate Professor  
Corvinus University of Budapest  
Corvinus Business School  
Department of Finance  
Financial Research Centre

Research Fellow  
Game Theory Research Group  
MTA KRTK, Hungarian Academy of Sciences

P.S.: Save the date, the 7th AFML Conference will be held 17-18 November, 2016 in Budapest.

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## INVITED SPEAKERS

**BATTEN, Jonathan A.**

*Jonathan A. Batten; Harald Kinateder; Niklas Wagner: Liquidity, Uncertainty and the Predictability of Aggregate Equity Returns*

We establish the importance of liquidity and uncertainty variables when predicting aggregate equity returns. Aside from these measures, we also investigate the predictive power of other well-known financial and economic factors (e.g. Fama and French Factors). Out-of-sample forecasting performance of a comprehensive set of predictive variables is then undertaken and compared with the historical mean model. The results show that most of the commonly used predictors cannot beat the historical mean in the entire sample. However, innovations in aggregate liquidity provide significant out-of-sample forecasts. With respect to uncertainty, we document significant out-of-sample performance using a recently proposed macroeconomic uncertainty measure, which is distinct from the VIX.

**BATTEN, Jonathan A.**

is Professor of Finance in the Department of Banking and Finance at Monash University, Australia. Prior to this position he worked as a Professor in Finance at the Hong Kong University of Science & Technology and Seoul National University, Korea. He is the managing editor of *Emerging Markets Review*, *Journal of International Financial Markets Institutions and Money*, co-editor of *Finance Research Letters*, and on the editorial boards of a number of other journals including the *Journal of Banking & Finance*, *Journal of Multinational Financial Management* and *International Review of Financial Analysis*. He is the current President of the Eurasian Business and Economics Society (EBES).

His current research interests include: Financial market development and risk management; spread modelling arbitrage and market integration; and the investigation of the non-linear dynamics of financial prices.



**HERINGS, P. Jean-Jacques*****Péter Csóka; Jean Jacques Herings: Decentralized Clearing in Financial Networks***

Consider a situation in which agents (banks, firms, organizations, individuals, etc.) have mutual financial claims on each other, summarized in a liability matrix. Agents' endowments might not be sufficient to satisfy their liabilities and agents may therefore default. A payment matrix describes how much agents actually pay to each other. A clearing payment matrix is a payment matrix satisfying limited liability and priority of creditors. Since endowments and claims are denoted in some unit of account, we analyze the discrete setup. Contrary to the existing literature, our emphasis is on decentralized clearing procedures. For a general class of bankruptcy rules, including the often assumed proportional rule, we show convergence of such procedures in finitely many steps to the minimal clearing payment matrix.

**HERINGS, P. Jean-Jacques**

Jean-Jacques Herings received a PhD in Economics from Tilburg University in 1995. He has been affiliated to the Université Catholique de Louvain, Tilburg University and as a visiting professor at Yale University. He is currently professor in Microeconomics at Maastricht University. He has been a recipient of all the major Dutch research grants. He has broad research interests, including Economic Theory, Game Theory, Finance, Industrial Organization, and Computational Economics, and he has published more than 80 articles in these areas in leading international scientific journals. He currently serves as an editorial board member of *Decisions in Economics and Finance*, *International Journal of Game Theory*, *Journal of Mathematical Economics*, *Journal of Mechanism and Institution Design*, and *Theory and Decision Library C: Game Theory, Social Choice, Decision Theory and Optimization*, and in the past of the *European Economic Review*. He is a member of the council of the Game Theory Society and currently serves as the Society's secretary and treasurer.



**PEDERSEN, Lasse H.*****Efficiently Inefficient: How Smart Money Invests and Market Prices Are Determined***

Building on new research and a widely acclaimed book, this presentation explains some of the trading strategies used by top investors such as George Soros and John Paulson, why they work, and whether investors can expect benefit from these strategies after asset management fees. The talks explores why financial markets are neither fully efficient, nor very inefficient, but, rather, somewhere in between, an insight that helps explain how market prices and asset management fees are determined.

**PEDERSEN, Lasse H.**

is a finance professor at Copenhagen Business School and NYU Stern School of Business and a principal at AQR Capital Management. He has served as Director of the American Finance Association, in the Liquidity Working Group meeting at the Federal Reserve Bank of New York to address liquidity issues, in the New York Fed's Monetary Policy Panel, in the Economic Advisory Boards of NASDAQ and FTSE, and on the editorial boards of the Journal of Finance, Journal of Economic Theory, The Review of Asset Pricing Studies, and Quarterly Journal of Economics. His academic awards include the Bernácer Prize to the best E.U. economist under 40 years of age, the Banque de France-TSE Prize, the Fama-DFA Prize, and the Michael Brennan Award. Lasse received his B.S. and M.S. from University of Copenhagen and his Ph.D. from Stanford University Graduate School of Business.



**Rosov, Sviatoslav*****Liquidity in Equity Markets: Characteristics, Dynamics, and Implications for Market Quality***

Two practitioner concerns regarding modern market structure are examined: (1) whether pretrade transparent (or "lit") liquidity provision is disincentivised by off-exchange trading, thus possibly increasing adverse selection risk, and (2) whether the resilience of liquidity has declined over time. Data from the US, UK, and French equity markets during the period 2010-2014 provide some evidence that off-exchange trading increases the probability of adverse selection on lit venues. No conclusive evidence is found consistent with a decline in the resilience of liquidity.

**Rosov, Sviatoslav**

is analyst in the Standards and Advocacy group with a focus on capital markets. He has a PhD in Finance from the Australian National University and recently moved to CFA Institute after teaching positions at University College London and London School of Economics. His main area of research is in market microstructure issues.



**STERNBERG, Michael*****Sternberg, Michael; Watson, Damian: Designation of Positions as Less Liquid to Represent the Difficulty in Disposition under Stress***

In the lecture we will discuss the quantitative data available to represent market liquidity for a position and the qualitative process used to settle on the categorization of positions as liquid or less liquid. Trading volume, bid/offer spreads, concentrated risks, product model uncertainty, and market position are amongst those things considered in the process. Different perspectives within a trading institution are sought to synthesize data and opine on market liquidity.

**STERNBERG, Michael**

is a Managing Director in the Firm Risk Management Division responsible for EMEA Risk Analytics. He joined Morgan Stanley in 1995. Before taking up his current role with Morgan Stanley he was a Global Co-Head of ISG Strats & Modeling responsible for BRM, Corporate Treasury, Wealth Management, Global Capital Markets, and Investment Banking Strats and their modeling colleagues in the MSSM Division. He previously was the head of the FID Strats with a background in Securitized Products. Prior to Morgan Stanley he was a Managing Director and head of Financial Strategies at Prudential Securities focused on new issue structuring of Mortgage and Asset-Backed Securities. He began his career in 1986 at The First Boston Corporation in New York in the Mortgage Department.



**SZÁZ, Vera*****Permanently Changing Liquidity on the Markets and Long Term Corporate Funding*****Száz, Vera**

is the Head of Funding at MOL Group Treasury responsible for financing the Group. She joined MOL Group in 2005. Before taking up her current role she was the Head of Funding and Risk management in INA Group and prior to that MOL Group Governance and Coordination Front office Manager. Vera holds M. Sc. in Economics from Corvinus University (2005).





**SZÉKELY, Balázs**

*Backtestability of Expected Shortfall*

The precise definition of backtestability of general risk measures has not been given in the literature yet. In the presentation, we propose a definition which is a natural generalization of Value-at-Risk backtesting. We study the consequences of this new concept on Expected Shortfall backtesting. Finally, we analyze the connection between backtestability and elicibility of risk measures and discover that there is deep connection between them.

**SZÉKELY, Balázs**

has been a member of Analytics Research team in MSCI Budapest office since December 2011. He contributes to the development of new risk methodologies for Barra and RiskMetrics. Prior to joining MSCI, he was a professor in Budapest University of Technology and Economics (BUTE), where he conducted research on stochastic processes and high-speed communication networks. Balázs obtained a PhD in Mathematics at BUTE in 2005.



**WAGNER, Niklas*****Harald Kinateder; Niklas Wagner: Quantitative Easing, Unobservables, and Fundamentals in the Pricing of EMU Sovereign Debt***

We study the determinants of changes in EMU sovereign bond yield spreads using a comprehensive set of observable explanatory variables including unconventional ECB monetary policy and fundamentals, both at a country-specific and a common level. We thereby employ a novel approach by jointly considering observable as well as additional unobservable time-varying factors. Our results reveal that unconventional monetary policy indeed significantly affects the pricing of EMU sovereign debt. Aggregate market liquidity has at least as much impact on yield spread changes as country-specific bond liquidity. Concerning unobservables, we find that a systematic risk premium together with country-specific turmoil factors, which explain divergence between turmoil and non-turmoil countries, explain about two-thirds of the variation in yield spread changes. A substantial underpricing of unobservable risk factors before the European sovereign debt crisis is further revealed. We conclude that fixed-income management should account for unobservable credit risk factors.

**WAGNER, Niklas**

is Professor of Finance and Financial Control at the University of Passau, Germany. After receiving his PhD in Finance, he held postdoctoral appointments at the Haas School of Business, U.C. Berkeley, and at Stanford GSB, thereafter finishing his habilitation doctoral degree at TU Munich. Professor Wagner has co-authored various contributions in finance, covering research in the areas of asset management, empirical asset pricing, applied financial econometrics as well as derivatives and risk management. Professor Wagner has co-edited book volumes on derivatives and risk management, currently is an associate editor of *Economic Modelling*, *Emerging Markets Review*, *Finance Research Letters*, the *Journal of International Financial Markets, Institutions and Money*, and the *International Review of Financial Analysis*, and is Editor-in-Chief of *Studies in Economics and Finance*.



**ZAWADOWSKI, Adam***Péter Kondor; Adam Zawadowski: Learning in Crowded Markets*

We develop a model of capital reallocation to analyze whether the presence of more sophisticated traders improve capital allocation and welfare. Trades can become crowded due to externalities but traders can devote resources to learn about the number of earlier entrants. In general, more traders having the choice to enter neither improves the efficiency of capital allocation nor does it aggravate crowding. In fact, whether there is eventually too little or too much capital allocated to the new sector is determined solely by the technology in that sector, the cost of learning, the depth of the market, and the severity of the potential shocks, but not the mass of sophisticated traders present. However, the presence of more traders decreases welfare, as they waste more aggregate resources in learning about each others' position.

**ZAWADOWSKI, Adam**

Adam Zawadowski is an Assistant Professor of Finance at Boston University School of Management since 2010. He has received his MS from Budapest University of Technology and Economics in engineering-physics, his MA from Central European University in economics and his PhD from Princeton University in economics. His primary research interest is in financial frictions, credit default swaps, and financial networks.



**SPEAKERS****BANAI, Ádám**

*Judit Temesváry; Ádám Banai: The Drivers of Foreign Bank Lending in Central and Eastern Europe: The Roles of Parent, Subsidiary and Host Market Traits*

We analyze the relative roles of subsidiary and parent banking group traits in driving foreign banks' lending patterns in the Central and Eastern European (CEE) region before and during the crisis. We use a new bank-level dataset on Western European banking groups and their CEE subsidiaries over the 2002-2013 period. We find that a bank's non-performing loans (NPL) ratio significantly lowered lending growth, while the parent bank's profitability encouraged subsidiary lending before the crisis. During the crisis, high bank NPLs and lower parent liquidity hindered lending, while better capitalization encouraged lending growth. Results suggest purging banks of NPLs, enhanced regulatory coordination and the inclusion of parent bank traits in countercyclical capital buffer calculations.

**BANAI, Ádám**

has received his MSc in investment analysis and risk management from Corvinus University of Budapest. He joined the Financial Stability department of the Magyar Nemzeti Bank (the central bank of Hungary) in 2008. He is the head of the Applied Research and Stress-testing Department. He is also a PhD student in the Corvinus University of Budapest since 2011. His main research fields are solvency stress-testing, funding liquidity risk, systemic risk, foreign currency lending.



**BOUSETTA, Selma*****Does a Stock Exchange's Choice of Corporate Governance Impact Market Quality?***

In this paper, data is collected on 5 experiences of demutualization during the period 2007-2013 to investigate this issue. Using a difference-in-difference approach, we show that spreads and volatility decrease after stock exchange demutualization and prices become more informative. This result is robust when we control for stock exchanges' characteristics and economic factors across samples.

**BOUSETTA, Selma**

is a PhD student and CRM research fellow at IAE Toulouse School of Management, at the Toulouse 1 Capitole University. She holds a master with major in finance from this same University. In spring 2015, she was a visiting PhD student at the Rotterdam School of Management at the Erasmus University for 2 months. Her research interests are essentially focused on financial market covering market microstructure and market design. She is combining theoretical and empirical approaches.



**CSÁVÁS, Csaba**

*Csaba Csávás; Gabriella Csom-Bíró; Mihály Hoffmann; Pál Péter Kolozsi; András Kollarik; Mónika Mátrai-Pitz; Zsuzsanna Novák; Henrietta Olasz; Gábor Sin: The Magyar Nemzeti Bank's Self-financing Programme*

Prior to the global financial crisis that broke out in 2008, the Hungarian economy accumulated high external debt, so its external exposure increased. During recent years, however, the external balance position of the country has improved considerably. The concept of self-financing, supported by the central bank self-financing programme announced in April 2014 aims at reducing the risks stemming from the high external and FX government debt. Our publication presents how Hungary over the past more than one year was able to renew its maturing external FX debt from forints and how it was facilitated by the MNB's programme. The programme resulted in more intense government securities purchases by banks and contributed to a decline in long-term government bond yields and thus to a fall in the financing cost of the general government. The transformation of the main policy instrument and the introduction of the central bank interest rate swap instrument stabilised banks' government securities portfolios, as the IRS made banks' holding more secure. The effect of the MNB programme is also shown by the fact that the increase in the banking sector's government securities holdings was greatly attributable to the banks that participated in the IRS tenders or needed to adjust due to the transformation of the main policy instrument.

**CSÁVÁS, Csaba**

is a Senior Economist at the Directorate Monetary Policy Instruments, Foreign Exchange Reserves and Risk Management of the MNB (the central Bank of Hungary). Before he was at the Monetary Policy and Financial Market Analysis Directorate of the MNB (2002-2013). He is specialised in analysing several aspects of the Hungarian financial markets (FX, government paper, derivatives markets; market structure, liquidity, asset pricing) as well as in issues related to FX reserves and monetary policy instruments. He is author of numerous MNB papers (Occasional Papers, Working Papers) and some international publications. Csaba Csávás holds an M.Sc. in Economics from the Budapest University of Economic Sciences (2002).



**DEY, Pallab*****Managing Market Manipulation Risk in Dark Pool by Analyzing and Forecasting Intraday Stock Quote Movement***

Market manipulation poses a key challenge in allowing trading in Dark Pool to High Frequency trading participants along with institutional investors, who are long term investors aiming to get price advantage with minimum or no market impact. Therefore, managing market manipulation risk effectively is critical to realize the true benefits of dark pool trading. The paper discusses about a specific manipulation scenario due to quote manipulation with respect to High Frequency trading with Dark Pool, and presents a methodology that tackles this scenario by preventing unfair trade matching (i.e. crossing) attempt in the pool. To implement the methodology, the paper does empirical analysis using autoregressive models on high frequency data to forecast mid-quote (mid of best bid-ask) price return. The direction of the forecasted return can be used to identify potential manipulation signals and make crossing decisions based on the same. The paper suggests to include time varying intraday liquidity indicator (best bid/offer size) in autoregressive model as a proxy for Investor sentiment, and studies the impact of using this information on intraday forecasting. It then analyzes the trade performance on simulated dark pool trades, after the proposed methodology is applied to tackle crossing with quote manipulation risk.

**DEY, Pallab**

is a Capital Market Technology professional with extensive experience in building real-time mission critical products in Front Office Derivatives / Sales & Trading / Algorithmic trading space for Equity business. He has been working in Equities Technology division throughout his career with investment banking industry at various banks in location such as Mumbai (India), Singapore, Tokyo (Japan) since 2007, and has been responsible for delivering trading system solutions in Sales & Trading and High Frequency trading environment. Prior to joining investment banking industry, he was researcher in Artificial Intelligence domain for around 2 years and has publication in international journal in this space.

Pallab has engineering background and did Masters in Risk and Investment Management from EDHEC-Risk Institute (EDHEC Business School) at Singapore, with focus in Asset Pricing, quantitative analysis, Financial Risk management and Portfolio optimization/Asset allocation. His Master's research is based on managing intraday quote manipulation risk (a potential gaming scenario) during automated trade matching in Dark Pool (private execution venue with non-displayed order book).



**FIALA, Tomáš*****Tomáš Fiala; Tomáš Havránek: Ailing Mothers, Healthy Daughters? Contagion in the Central European Banking Sector***

Foreign-dominated banking sectors, such as those prevalent in Central and Eastern Europe, are susceptible to two major sources of systemic risk: (i) linkages between local banks, and (ii) linkages between a foreign parent bank and its local subsidiary. Using a nonparametric method based on extreme value theory, which accounts for fat-tail shocks, we analyze interdependencies in downward risk in the banking sectors of the Czech Republic, Poland, Slovakia, and Turkey during 1994 - 2013. We find that the risk of contagion from a foreign parent bank to its local subsidiary is substantially smaller than the risk between two local banks.

**FIALA, Tomáš**

is a student at Charles University in Prague. He is also a PhD candidate at the University of Lugano and SFI. His research focuses on asset pricing. In particular, the focus of the last work was on the link between asset prices and political uncertainty.





**GARABEDIAN, Garo N.**

*Garo Garabedian; Koen Inghelbrecht: A Unified Market Liquidity Measure*

We introduce a novel method (based on Illing and Liu (2006) and popularized by Holló et al. (2012) through the CISS measure) to aggregate different groups of liquidity measures (percent-cost proxies, cost-per-volume proxies, etc.), in order to accommodate for the 'different dimensions of liquidity' (Amihud et al., 2005) through a single 'unified' marketwide aggregate liquidity metric. The weights for the multiple dimensions are time-varying and depend on three components: the correlation between groups, the pressure conveyed through the measure (threshold), and their conditional variance. We evaluate the performance of our market liquidity measure in various ways. Most importantly, our liquidity measure succeeds in tracking the most important historic episodes of financial stress and has a close relation with many crisis indicators. Moreover, our unified liquidity measure shows the expected macroeconomic and financial relationships mentioned in the literature, and even has some predictive power for future growth rates of traditional variables. Finally, our methodology allows to gauge the individual importance of each liquidity group over time. Our results unveil the spread and etick liquidity groups as the main protagonist duing turbulent financial periods.

**GARABEDIAN, Garo N.**

is a Ph.D. candidate since 2009 in the Department of Financial Economics at Ghent University, where he also obtained his M.A. in economic science. His main research interests are situated in the field of micro/macro finance, monetary economics and behavioral finance. More specifically, his latest research focuses on the construction of a unified market liquidity measure (and its applications for macro-finance and asset pricing); and the impact of memory on the procyclicality of financial cycles. These past years, he has been a visiting researcher at the Deutsche Bundesbank, an external associate for the Belgian Bankers Association, and a financial consultant for Deminor. He has received teaching excellence awards for a course on International finance at Ghent university (master level), and presented his work at many international conferences (EEA, IFABS, BFWG, etc.). His first research paper was published at the Journal of Macroeconomics, and he has several high quality papers currently under submission.



**HAVRAN, Dániel; VÁRADI, Kata*****Dániel Havran; Kata Váradi: Why Should We Care About Informed Liquidity Providers?***

We examine the dynamics of the limit order book recovery in the purely order-driven markets. The configuration of the current limit placements in the order book determines the costs over the mid-quote for the buy and sell trades. By analyzing the relationship between the costs of the possible trades and market order-flows, we find that bid and ask side trade costs have significant impact on the direction of future market orders. Moreover, bid and ask side trade costs revert to their characteristic state. For the further analysis of limit order placement strategies, we extend the cost of trade approach by several attributes of the entire limit order book. Using snapshots about cost of round trip indicators from Budapest Stock Exchange stocks, we decompose the shape of the immediate price impact function to main three components, slope, convexity and hump-shape. By running impulse response simulations, we document the typical temporary movements of the trade costs curves and we find empirical evidences about the "pegging to the current mid-quote" behavior of the liquidity providers.

**HAVRAN, Dániel**

holds an Assistant Professorship position at the Corvinus University of Budapest, where he teaches Corporate Finance (BA and PhD levels) and Credit Risk Management (MSc). He obtained his PhD in Economics at Corvinus University of Budapest in 2011. His research interests are market liquidity, corporate finance and credit risk management.

**VÁRADI, Kata**

is an Assistant Professor at the Department of Finance, Corvinus University of Budapest since 2013. Kata graduated in Finance in 2009 from Corvinus University of Budapest, and was awarded a Ph.D. degree in 2012 for her thesis on the analysis of the market liquidity risk on the Hungarian stock market. Her research areas are market liquidity, fixed income securities, and networks in healthcare systems. Besides doing research, she is active in teaching as well. She is teaching mainly Corporate Finance, Investments, Valuation, and Multinational Financial Management.



**HECK, Stephanie*****Stephanie Heck; Dimitri Margaritis; Aline Muller: Liquidity Patterns in the US Corporate Bond Market***

Liquidity commonality exists and empirical evidence (e.g. Lin et al., 2011) indicates that exposure to this common liquidity factor is priced in the cross-section of corporate bonds. The existence of commonality implies that part of a bond's illiquidity is left as idiosyncratic. In this paper, we study how illiquidity components explain the cross-section of bond yields and how this relationship varies over time and across bond categories. We use a factor decomposition to break down total illiquidity into a common and an idiosyncratic component and analyze how yields relate differentially to each of these two components. We find that a bond's idiosyncratic illiquidity is important, which might reflect informational asymmetries compounded by the lack of diversification in the institutional investors' portfolios. Moreover, the relation between idiosyncratic illiquidity and yield spreads appears to become stronger after the recent financial crisis.

**HECK, Stephanie**

is a PhD student and FNRS research fellow at HEC-University of Liège Belgium. She holds a master with major in finance from this same University. During her studies she spent a 6-months internship in the Liquidity management section of the European Central Bank. In 2013, she was a visiting PhD student at the University of Auckland, New Zealand, for 3 months. Her research interests are essentially focused on corporate bond markets covering liquidity and credit risk aspects.



**KINATEDER, Harald***Google Search Volume and Liquidity in European Equities*

This study analyzes whether Google search volume (GSV) can explain liquidity in aggregate European equities and therefore be regarded as a direct proxy of investor attention. For this purpose, a two-state Markov switching model is employed to account for possible differences in regimes. The analysis covers 45 European large-cap equities in the period from 01/2004 to 12/2014. Illiquidity is measured by the Amihud measure. The results document a negative relation between changes in illiquidity and GSV in the crisis regime. However, in the tranquil regime there is no significant influence of GSV on illiquidity.

**KINATEDER, Harald**

is a postdoctoral research fellow at the University of Passau since 2012. From 2007 to 2012, he was a research fellow at the University of Passau. He obtained his doctoral degree in Finance in 2012 from the same institution. His research areas include quantitative risk management, SME financing, and pricing of sovereign debt, among others. He has published in several journals including the *Journal of Risk Finance and Physica A*.



**KURACH, Radosław; SŁOŃSKI, Tomasz; ZAWADZKI, Bartosz*****Liquidity Migration and the Cost of Capital of Stocks Cross-Listed in Central and Eastern Europe***

According to market segmentation hypothesis some companies share the view that any one capital market may absorb only limited amount of a company's stock at any time, therefore they decide to float equity in different countries' markets simultaneously. Our research objective is twofold. Firstly, we provide the evidence on the (no) arbitrage opportunities between the mature and emerging markets in Europe. CEE exchanges for many years has been recognized as the markets with higher equity premium, hence, more costly capital (Salomons and Grootveld, 2002). This could be due to lower liquidity and greater political risk comparing to the mature markets. Respect to this point we should not assume that the companies have decided to cross-list their shares in CEE looking for cheaper financing opportunities. Secondly, we check the importance of the underlying liquidity of the shares trading in the multi-market environment. Our sample consists of 11 companies cross-listed on Pan-European markets. We analyze whether the migration of trading of "international firms" to minor exchanges has led to a significant diversion of trading away from domestic shares into local markets ones.

**SŁOŃSKI, Tomasz**

is The Chairman of Public and International Finance in Wrocław University of Economics. Received a PhD in Economics in 2002 based on his research on M&A and the corporate valuation. His research area is focused on International Market, Market Efficiency Analysis. He is co-founder and the member of the board of Business Appraisals Society in Poland. He is a member of the reviewing committee of "Business and Economic Horizons" journal.

**KURACH, Radosław**

is Assoc. Professor at Faculty of Economic Sciences, Wrocław University of Economics (Poland), where he delivers the courses on financial risk management, portfolio theory, macroeconomics and monetary policy. His current scientific research covers the area of pension fund' portfolios management. He also holds professional certifications - The Professional Risk Manager (PRM™) and ACI Dealing Certificate.

**ZAWADZKI, Bartosz**

is a Ph.D. Candidate in the Public and International Finance department at Wrocław University of Economics. His research fields cover Market Efficiency Analysis (share buyback and dividend policy outcomes) with an emphasis on the Event Analysis Methodology.



**LUQUE, Jamie***Dollar Shortage, Central Bank Actions, and the Cross Currency Basis*

Cross-currency basis is the equilibrium price, on top of the interest differential, for the exchange of funding abilities in different currencies. Funding pressures and market imbalance raise the possession value of the scarcer currency. The basis reflects this value and clears the market. We examine the basis during the 2008 financial crisis, when European banks had a hard time rolling over their dollar ABS positions funding. As predicted by our model, the euro-dollar basis widened with shortage of dollars and narrowed after October 15 2008 when the ECB fully allotted (with the Fed's help) European banks' bids for US dollars.

**LUQUE, Jamie**

joined the Wisconsin School of Business as assistant professor in the Department of Real Estate and Urban Land Economics in September 2012. Before this he was visiting professor in the Department of Economics at the Carlos III University of Madrid. Professor Luque's academic research focuses on securities and mortgage markets, urban economics, and public policy and central banking. His research has been published in journals such as *Journal of Economic Theory*, *Journal of Public Economics*, *B.E. Journal of Macroeconomics*, and *Regional Science and Urban Economics*. He has also written opinion pieces for the *Financial Times*, *Expansion* and *La Repubblica*, as well as for the *Vox.eu* and *Eurointelligence* economics op-ed sites. Luque received his B.S. from University of Salamanca and his Ph.D. from Nova School of Business and Economics.



**NATHAN, Daniel**

*Might Inflation-Indexed Bonds be Informative After All? Evidence From a Liquid Market*

Studies of government yields suggest that real yields on inflation-indexed bonds are too high due to their illiquidity, making their use in inferring expected inflation and term premiums unreliable. This paper analyzes the determinants of Israeli government yields, both real and nominal by estimating a multi-factor, essentially affine, term structure model (ATSM). Israeli data is unique as inflation-indexed bonds have been trading in Israel since 1982 and are liquid. The results reveal that the unconditional term structure of the inflation premium is increasing with maturity, while the term structure of inflation expectations has been generally flat. I also find that most of the variance in the one-year nominal yield is due to the one-year real yield variance, most likely due to monetary policy affecting the real short rate to affect inflation expectations. However, at longer maturities, expected inflation and the inflation term premium determine most of the variance.

**NATHAN, Daniel**

is a PhD student in Finance at Tel-Aviv University. He has been working as an economist for the Bank of Israel at the monetary department since 2007, and as a research economist at the research department since 2010. His main areas of interest are monetary policy, term structure models, and empirical financial.



**MALKHOZOV, AYTEK*****Does Variance Risk Have Two Prices? Evidence from the Equity and Option Markets***

We formally compare two versions of the market Variance Risk Premium (VRP) measured in the equity and option markets. Both VRPs follow common patterns and respond similarly to changes in volatility and economic conditions. However, we reject the null hypothesis that they are identical and find that their difference is strongly related to measures of the financial standing of intermediaries. These results shed new light on the information content of the VRP, suggest the presence of market frictions between the two markets, and are consistent with the key role played by intermediaries in setting option prices.

**MALKHOZOV, AYTEK**

is an economist in the Financial Markets group of the BIS Monetary and Economic department. Prior to joining the BIS he was an Assistant Professor of Finance at McGill University and a Visiting Assistant Professor of Finance at the London School of Economics. He holds a PhD degree in Finance from the London School of Economics.





**OZSOY, S. Mehmet*****S. Mehmet Ozsoy; Gazi I. Kara: Bank Regulation under Fire Sale Externalities***

This paper examines the optimal design of capital and liquidity regulations when financial markets are incomplete and characterized by asset fire sale externalities. We show that when capital is regulated but liquidity is not, banks still hold liquid assets for micro-prudential reasons; they can use these resources to protect against liquidity shocks. Liquidity is advantageous from a macro-prudential standpoint as well: Higher liquidity holdings lead to less severe decreases in asset prices during times of distress. However, we assume that this externality is not internalized by individual banks. Therefore, banks' liquidity holdings are inefficiently low from a social point of view. Predicting this reaction from banks, the regulator raises the minimum capital ratio requirement to inefficiently high levels, which corresponds to a reduction in socially profitable long-term investments. Our results also indicate that the regulatory framework in the pre-Basel III period, which predominantly focused on capital adequacy requirements, was both inefficient and ineffective in addressing systemic instability caused by liquidity shocks.

**OZSOY, S. Mehmet**

is Assistant Professor of Financial Economics at Ozyegin University, Istanbul since 2013. He received his Ph.D. in Economics (2013) from Duke University, his M.A. in Economics from Koç University (2008) and his B.A. in Economics from Boğaziçi University (2006). His research interests include financial economics, macrofinance and financial intermediation. Dr. Ozsoy teaches courses on macroeconomics and econometrics.

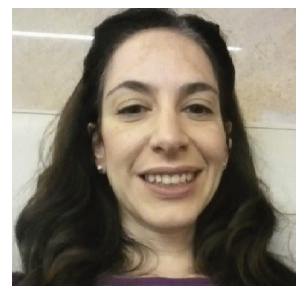


**PAPANAGIOTOU, Evangelia*****Sven Langedijk; George Monokroussos; Evangelia Papanagiotou: Benchmarking Liquidity Proxies: Accounting for Dynamics and Frequency Issues***

We revisit a central task of the extant liquidity literature, which is to identify effective measures of liquidity. We critically assess the influential practice of identifying the best liquidity measures based on monthly correlations by comparing and contrasting correlations between monthly and daily averages of high-frequency benchmarks and low-frequency proxies of liquidity, as well as by examining the coherences between such measures. Furthermore, we propose MIDAS regressions as a way of investigating the bilateral relationships between benchmarks and proxies without averaging out potentially valuable high-frequency information, as is common practice. We conclude that the empirical correlations between benchmarks and proxies in general become weaker as the frequency over which these relationships are examined becomes higher, and that standard practices may lead to misleading conclusions. One implication of our results is that any liquidity measure needs to be assessed against the relevant timeframe for conversion into cash.

**PAPANAGIOTOU, Evangelia**

received her Ph.D. in Applied Econometrics from the University of the Aegean (Greece). She is a postdoctoral researcher at the Financial and Economic Analysis Unit of the Joint Research Centre, European Commission. Her research interests are on applied financial econometrics and time series analysis with a focus on capital markets. Currently she is conducting research on liquidity measures and on how to enhance the measurement of liquidity. Her research work has been published in highly reputable journals like Applied Financial Economics, Economics Notes and Journal of Applied Statistics.



**SAERENS, Matthias**

*Commonality in High-Frequency Trading*

High-frequency trading (HFT) accounts for an important percentage of trading volume in equity markets. In this paper, we focus on HFT in the cross-section of assets. In particular, we study the possibility that it induces commonality across stocks and test if this commonality is time-varying. Using a sample of NASDAQ-listed stocks, we first examine whether there is a common factor in the intraday trading activity for this class of traders and whether it differs from non-HFT. We find that there is indeed commonality in HFT across stocks, but this is also true for non-HFT. A more detailed analysis shows that the exact difference between both groups of traders is complex and depends on the measure considered. Volume-based measures of HFT co-move more relative to non-HFT, while the reverse is true for imbalance-based measures. Secondly, we investigate if this commonality and the differences between HFT and non-HFT are more prevalent during certain market conditions such as high or low volatility and liquidity.

**SAERENS, Matthias**

is a PhD student in Finance at the KU Leuven since 2012. His research interests are situated within the field of market microstructure of financial markets. More specifically, his doctoral research focuses on the impact of algorithmic and high-frequency trading for equity markets. He obtained a master's degree in business engineering from the KU Leuven.



**SIMON, Zorka*****Not Risk Free: The Relative Pricing of Euro Area Inflation-indexed and Nominal Bonds***

This paper presents empirical evidence of selective default premium in inflation-linked sovereign bond (ILB) yields of Germany, France and Italy. I define selective default as an event in which a sovereign issuer chooses not to meet obligations on a class of bonds, while servicing her other debt. To identify this effect, I use a unique cross-country sample to set up a trading strategy that takes the difference of breakeven rates from two countries. Differencing eliminates common components, such as the effect of inflation expectations or interest rate risk. As a result I find that exposures to two systematic risk factors, liquidity and sovereign credit risks explain most of the difference between breakeven rates both within and across countries. I link these findings to the ILB-nominal puzzle documented by Fleckenstein, Lustig and Longstaff (2014) which shows that ILBs are underpriced relative to nominal bonds of the same issuer. I show that this underpricing is due to relative risk premia differences between nominal and inflation-linked debt: ILBs are less liquid, moreover investors perceive them to have higher credit risk exposure than nominal bonds during the financial and euro crises.

**SIMON, Zorka**

is a Postdoctoral Researcher at the Chair of International Finance of the University of Mannheim. She is expected to earn her PhD in Finance in 2016 from Tilburg University. She is also a junior research fellow of Netspar. Her research areas include empirical asset pricing, sovereign debt pricing, as well as liquidity and credit risk. Her most recent research considers the effect of regulatory changes and monetary policy on long-maturity sovereign bonds.



**TIMOTITY, Dusán*****Dusán Timotity; Mihály Ormos: In Search of Asymmetric GARCH Models: A Loss-aversion-based Explanation of Heteroscedasticity***

This paper aims to provide a fundamental explanation for the heteroscedasticity of asset returns and, in particular, for the asymmetric relationship between volatility and return. We show that existing explanations (i.e. the leverage and volatility feedback effects) can be rejected in a thorough analysis, therefore, the phenomenon still remains unexplained. Our theoretical model, in line with recent findings in behavioral finance, assumes that investors behave according to Prospect Theory rather than Expected Utility Theory. We create a theoretical setting in which specific, unitroot versions of two of the best fitting heteroscedasticity models (i.e. EGARCH and TGARCH) can be derived on the basis of behavioral patterns. The model is supported by empirical results as well from two different aspects. On the one hand we find behavioral evidence for investors following risk-seeking behavior subsequent to losses and more risk-averse behavior after gains. This phenomenon explains investors' asset allocation habits, and therefore, provides a dynamic model for liquidity. On the other hand, an empirical parameter estimation for the theoretical volatility model is presented indicating a significant, negative relationship between abnormal return and volatility in subsequent period.

**TIMOTITY, Dusán**

Dusán Timotity is a PhD student at the Budapest University of Technology and Economics, Department of Finance. His field of research is related to capital asset pricing including downside risk models, empirical finance with focus on conditional heteroscedasticity and behavioral finance. His recent research project is aimed at establishing a relationship between asymmetric volatility prediction models and patterns in investor behavior. He holds an MSc in Finance from Budapest University of Technology and Economics.



**TUJIP, Patrick***Pricing Effects of Time-Series Variation in Liquidity*

Stock market liquidity dry-ups mainly occur in two ways. During a market downturn, all assets may become less liquid (level shift), or only illiquid assets may become less liquid (slope effect). It is well-known that the level shift (commonality) is priced, but the slope effect is less straightforward. For instance, if institutional investors respond to fund outflows by selling liquid assets first, a slope effect will increase future transaction costs in case further outflows occur. In this study, I show that the first two principal components of liquidity innovations explain 66% of the variation for a sample of U.S. stocks. The level component reflects adverse selection, inventory risk, and margin requirements, while the slope component reflects inventory risk, trading in the liquid segment of the market, and investor sentiment. In addition, I investigate the pricing of these components using a liquidity CAPM. The results show that only the liquidity level component is priced, and that its economic impact is about 1.1% p.a., while the economic impact of the remaining principal components is only 0.19% p.a.

**TUJIP, Patrick**

is a scenario specialist at Ortec Finance and a doctoral candidate at Tilburg University. He received his M.Phil. in Economics from the Tinbergen Institute in 2010. He has been at the University of Amsterdam from 2013 until 2015. His research interests are asset pricing theory, empirical asset pricing, and market microstructure, with a specific focus on liquidity risk and the investment horizon.

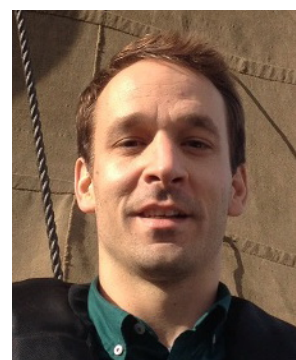


**VENTER, Gyuri*****Aytek Malkhozov; Philippe Mueller; Andrea Vedolin; Gyuri Venter: International Illiquidity***

Using a parsimonious international asset pricing model in which frictions dislocate security prices from the levels implied by their risk, we derive predictions regarding the effect of illiquidity on the cross-section of international stock returns. Empirically, we first construct daily proxies for illiquidity for six different countries, which exhibit a strong common component but also idiosyncratic variation. With these measures, we document the following findings: First, higher global illiquidity implies a lower slope and higher intercept of the international security market line. Second, alphas and Sharpe ratios are increasing in local illiquidity. Third, betting-against-beta (BAB) strategies in high illiquidity countries outperform those in low illiquidity countries, and fourth, accounting for illiquidity improves on the performance of BAB strategies.

**VENTER, Gyuri**

is an Assistant Professor of Finance at the Copenhagen Business School since 2011. He received his PhD in Finance from the London School of Economics and Political Science, and his MSc in Economics from the Corvinus University of Budapest. His research focuses on the asset pricing implications of market frictions, market microstructure, and information economics.



**WALTER, György*****Centralised Cash Management Services: How Much is a Cash Pooling Worth?***

Corporate cash management, and specifically centralised cash management is pivotal to classical corporate financial theory and practice. The objective of the research is to present the growing role of banking transaction services and to analyse the continuously developing "netting", "cash pool" and "information pool" banking products. It is a clear conclusion, that these services require specialised know-how at commercial banks. It is also apparent, that banks need to keep pace with the globalisation and regional expansion of their multinational and SME clientele. Finally, the value added of the implementation of a cash pool system is modelled and simulated. Main questions are: How much is the expected value added of a potential cash pool, and what are the main drivers behind it?

**WALTER, György**

received his MSc in finance and later his Ph.D. in corporate finance from the Corvinus University of Budapest. Following his doctoral studies he spent 10 years in the banking sector in the management of several commercial banks in Hungary. He is currently an associate professor at the Corvinus University of Budapest, Faculty of Business Administration, at the Department of Finance. His main research fields are banking, corporate finance, financing decisions, and income contingency.





**WOLL, Oliver*****Mean-Risk Hedging Strategies In Electricity Markets With Limited Liquidity***

This article investigates mean risk hedging with respect to limited liquidity and studies the impact of different risk measures on the hedging strategies. For motivation and application purposes hedging in electricity markets is chosen, because the relevant hedging markets are characterized by limited liquidity. We enhance the approach in Woll and Weber (2015) to a mean-risk optimization under limited liquidity, including the risk measures absolute and relative Value and Conditional Value at Risk (VaR and CVaR). It can be shown that for position independent measures (Variance, relative VaR, relative CVaR) liquidity has no influence on the minimum risk hedging strategies, whereas for position dependent measures (absolute VaR, absolute CVaR) liquidity has an impact on the minimum risk hedging strategies. The article gives the mathematical formulations of the problems and discusses the economic relevance of the different models. In addition, we apply the analyzed concepts to the German Electricity markets.

**WOLL, Oliver**

studied mathematics and business management at Saarland University, with a special focus on industrial management theory, operations research, and statistics. From 2005 to 2013, he worked as a research assistant at the Chair of Management Sciences and Energy Economics, University of Duisburg-Essen (Prof. Dr. Weber). Since 2010, he had been team leader for risk and corporate management at the chair. In September 2013, Oliver joined the Research Group "Competition and Regulation" at ZEW and oversees the research focus "Competition and Regulation in Network Industries". He studies limited liquidity of energy markets and its impact on methods and model for decision support in his dissertation project. His general research interests encompass the analysis of network industries and the application and enhancement of mathematical models to the market characteristics. This includes questions of competition in electricity markets, especially against the background of fluctuating renewable generation, as well as related topics from other energy markets (e.g. gasoline) and environmental economics.



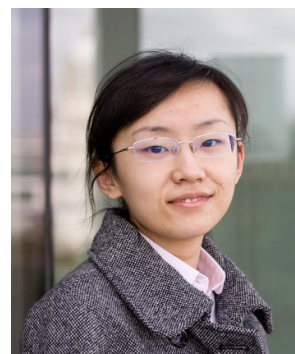
**ZHANG, Cheng**

*The Effect of Options on Liquidity and Asset Returns*

I examine how the introduction of an options market affects liquidity and expected returns of underlying assets in an economy with asymmetric information. Options provide hedging benefits and improve the risk sharing between liquidity demanders and liquidity suppliers. However, this improvement in agent welfare differs between the two groups of agents. I show that introducing derivatives can have opposite effects on underlying asset prices and thus can potentially reconcile the mixed empirical evidence regarding the effects of options listing. Additionally, introducing derivatives reduces the price impact of liquidity demanders' trades on the underlying risky asset, but has no effect on the price reversal of the underlying risky asset. Moreover, my results hold if I allow for endogenous participation and derivatives with general payoff structure. Finally, I provide new empirically testable implications.

**ZHANG, Cheng**

is a PhD candidate in Finance at the London School of Economics and Political Science since 2011. She received her M.Phil. in Finance from the Tilburg University in 2011 and her B.S. in Financial Mathematics from Shandong University in 2009. Her research interests are asset pricing and investment with a focus on derivative markets and liquidity.



**POSTERS****BĘDOWSKA-SÓJKA, Barbara*****Liquidity Dynamics Around Jumps in Intraday Data. The Evidence from the Warsaw Stock Exchange***

The aim of our study is to examine the liquidity dynamics around jumps detected in 5-minute intraday stock returns data. We use trading volume and number of trades as a proxy for liquidity as well as other liquidity measures. We consider equally spaced returns of the most liquid stocks quoted on the Warsaw Stock Exchange within one-year sample period. We find that only minority of jumps is associated with public information releases, whereas majority of them is motivated by liquidity shocks observed in the spreads, volume and the number of trades. Our findings show that jumps are accompanied by serious changes in liquidity measures, which are dependent on the "information content" of the jumps. Shocks in quoted spread, volume and number of trades are the key drivers of the price formation process.

**BĘDOWSKA-SÓJKA, Barbara**

is an assistant professor at the Department of Econometrics at Poznań University of Economics where she received her PhD in Economics in 2005. Her main research interests are in financial market microstructure, financial econometrics and volatility modeling. She also focuses on the measures of volatility based on the high frequency data. Recently she has published a book on the impact of information on the intraday prices of financial instruments.



**BERLINGER, Edina; DÖMÖTÖR, Barbara; VÁRADI, Kata*****Edina Berlinger; Barbara Dömötör; Ferenc Illés; Kata Váradi: How to Define Stress in Financial Markets***

The definition of a stress event in financial markets has an essential role in risk management and this term has gained importance also in the latest regulation of the financial sector. In case of a stress situation institutions get more autonomy in order to flexibly react to the crisis, but afterwards the regulatory capital will be increased as risk models are required to incorporate the experience of real stress periods in the framework of stress tests, scenario analysis and model calculations. However, it is not clearly specified what should be meant under a stress situation. It is even not clear whether frequent stress alarms serve the interest of financial stability the best or a well-working stress measure should sign only in deep crisis. Based on the regulation, we propose some objective and measurable definitions of stress and compare their timing, magnitude and correlation on the US stock market.

**BERLINGER, Edina**

is an associate professor at Corvinus University of Budapest and she is also the Head of Department of Finance. Her expertise covers asset pricing and risk management and especially the financial management of student loan systems. She has participated in several research and consultancy projects including design and implementation of student loan schemes as World Bank consultant and a research fellowship at the Collegium Budapest in complex systems. She received her PhD in Economics (2004) from Corvinus University.

**DÖMÖTÖR, Barbara**

is an Assistant Professor of the Department of Finance at Corvinus University of Budapest (CUB). She has a MSc. in Finance from Budapest University of Economic Sciences (predecessor of CUB). Before starting her PhD studies in 2008, she worked for several multinational banks treasury in field of structuring currency and interest rate risk hedging products for corporate clients. She is now working on her doctoral thesis about corporate hedging. She is teaching Corporate Finance, Financial Risk Management and Investment Analysis, her main research areas are financial markets, financial risk management and corporate hedging.

**VÁRADI, Kata**

is an Assistant Professor at the Department of Finance, Corvinus University of Budapest since 2013. Kata graduated in Finance in 2009 from Corvinus University of Budapest, and was awarded a Ph.D. degree in 2012 for her thesis on the analysis of the market liquidity risk on the Hungarian stock market. Her research areas are market liquidity, fixed income securities, and networks in healthcare systems. Besides doing research, she is active in teaching as well. She is teaching mainly Corporate Finance, Investments, Valuation, and Multinational Financial Management.



**DASZYŃSKA-ŻYGADŁO, Karolina - SŁOŃSKI, Tomasz - ZAWADZKI, Bartosz**

*Karolina Daszyńska-Żygadło, Tomasz Słowski, Bartosz Zawadzki: Relation of CSR and market measures of financial sector performance: International evidence*

In this paper we investigate the relationship between Corporate Social Responsibility performance (CSP) and firms' financial standing - corporate financial performance (CFP) in industry sectors and financial sector and subsectors. Our research targets at serving as a valuable comparison to up to date studies as well as claims to present complimentary results obtained on the basis of different approaches. In order to confirm heterogeneity across industries we have divided our sample into ten industries subsamples and three financial subsamples. We checked the impact of each category of CSP (Corporate Governance, Environmental, Economic and Social) on the financial performance. We find substantial differences among subsectors, each sector benefits/loses from CSR actions to the different extent. Some of them are immune to the CSR actions (i.e. Telecom Services is sensitive only to Governance when measuring with PE ratio change). On the basis of these findings we can initially confirm that there exists contingency perspective on the effect of corporate social responsibility performance (CSP) on corporate financial performance (CFP) which can be observed by statistically significant differentiated results across ten analyzed sectors.

**DASZYŃSKA-ŻYGADŁO, Karolina**

holds position of assistant professor in the Public and International Finance department at Wrocław University of Economics. Her research fields are: corporate valuation, financial planning and corporate sustainability. In 2015 her book on scenarios approach in corporate valuation was published in Poland. Along with research and teaching she deals with business consulting and mentoring, especially for early stage business ideas and start-ups.

**SŁOŃSKI, Tomasz**

is The Chairman of Public and International Finance in Wrocław University of Economics. Received a PhD in Economics in 2002 based on his research on M&A and the corporate valuation. His research area is focused on International Market, Market Efficiency Analysis. He is co-founder and the member of the board of Business Appraisals Society in Poland. He is a member of the reviewing committee of "Business and Economic Horizons" journal.

**ZAWADZKI, Bartosz**

is a Ph.D. Candidate in the Public and International Finance department at Wrocław University of Economics. His research fields cover Market Efficiency Analysis (share buyback and dividend policy outcomes) with an emphasis on the Event Analysis Methodology.



**HEVÉR, Judit**

*Portfolio Valuation under Liquidity Constraints With Permanent Price Impact*

According to the theory provided by Acerbi and Scandolo (2008), the value function of an illiquid portfolio can be defined under a given liquidity policy (constraints imposed by an investor) and the Marginal Supply-Demand Curve (MSDC) of the assets. Our aim is to examine the concept of liquidity policy and generalize the definition keeping the convex optimization framework. We modify the MSDC with the permanent price impact to value more accurately the attainable portfolio that satisfies the imposed liquidity policy. Finally, we compare through examples the original portfolio value under liquidity and our modified one, which considers permanent impact as well.

**HEVÉR, Judit**

is a PhD student at the Department of Finance at Corvinus University of Budapest. She earned her Master's Degree in Mathematical Finance at Corvinus University of Budapest in 2010. Before starting her PhD studies, she worked as an analyst for OTP Bank, Strategy Department. Her field of research is related to liquidity, market impact and portfolio valuation.



**MÁRKUS, Balázs***Carry Trades and Jumps*

My poster is about the distribution of the profit and losses on carry trades among traders executing different strategies. Even if there is an a priori expected risk premium most trading strategies are unable to exploit them. Leverage makes carry trades highly path dependent even if the traded instruments are not per se path-dependent. Even if carry traded positions are opened at random points the stop losses tend to happen simultaneously thus carry trades can be responsible for some of the illiquid situations which lead to jumps. For dynamic hedgers jumps could be inconvenient and these potential jumps have their footprint on the volatility surface. For an empirical study I used the last ten year data for the Turkish Lira market.

**MÁRKUS, Balázs**

works with financial derivatives for over ten years. He is member of the Advisory Board at Pallas Athéné Domus Scientiae Foundation, part time analyst at the National Bank of Hungary and managing director of Nitokris Ltd, a small proprietary trading and consulting company. He recently works on his PhD at the Corvinus University of Budapest where he is affiliated as a teaching assistant. He is interested in low liquidity situations and jumps from a derivative hedging viewpoint. He focuses on the impact of jumps on discrete dynamic hedging and the potential jump-generating role of the cost of carry on the currency markets.



**MARSZALEK, Jakub***Liquidity Aspects of Hybrid Financing Around the Financial Crisis*

The purpose of the paper is to analyze changes in financing conditions of enterprises using convertible bonds. The study was conducted in two periods: before and after the global financial crisis outbreak. Shortening the maturity of the debt or its conversion into shares should be particularly evident during the difficult capital access time. The paper has been hypothesized confirming the use of convertible bond by worse company in the time of financial crisis. The study involved the most important characteristics of convertible bonds issued by US non-financial corporations before and after the crisis. To evaluate the differences between the parameters of the issuers prior to and during the 2008 crisis statistical analysis based on significant differences tests was used. The t test for independent samples and the Mann-Whitney test were used. The analysis of the differences shows that worse economic conditions resulted in lower liquidity and profitability ratios. Increased leverage level was also observed. It confirms some theoretical explanations about the convertible debt financing premises. The article is a voice in this discussion, which quite rare is focused on liquidity aspects. This approach is nearly absent in the literature.

**MARSZALEK, Jakub**

is an assistant professor at the Department of Finance and Strategic Management at the University of Lodz, where he received his Ph.D. in economics in 2004. His main research interests are in capital structure problems, convertible bond financing and early stage financing. He also focuses on banking and strategic management aspects. Recently he has published a book about convertible debt financing strategy in US.





**RÁCZ, Dávid Andor**

*Tracing the Performance Manipulation of Active Funds*

Although there are several performance measures used for the performance evaluation of active funds one can see that applying performance measures correctly is not straightforward. The Manipulation Proof Performance Measure (MPPM) developed by Ingersoll et al. (2007) is one of those measures which are able to produce unbiased risk adjusted scores even if the fund's return distribution is abnormal (1) or in case of performance manipulation (2a) and return smoothing (2b). MPPM is also a good indicator of performance manipulation as it has high rank correlation with manipulation free funds classical scores, but lower rank correlation for manipulated funds, where manipulated funds were identified using alternative statistical detecting methods. The MPPM can also be used to calculate implied risk aversion rates to detect possible reporting/performance manipulation, as manipulated funds have extremely high risk aversion ratios shown by Brown et al (2010). I am analyzing the performance of Hungarian absolute return funds to detect the best and worst performing funds. My goal is to identify those funds which are most likely manipulated. I would like to understand how fund managers are trying to manipulate their reported returns and what the statistical commonalities for manipulated funds are.

**RÁCZ, Dávid Andor**

is a quantitative analyst at the Model Review Group of Morgan Stanley Hungary and PhD student at the Department of Finance at Corvinus University of Budapest. He earned his Masters in Economics at Corvinus University of Budapest in 2010. His research includes performance evaluation of active funds and tracing of performance manipulation with the use of manipulation proof performance measures.



## **PRACTICAL INFORMATION**

### **Conference Venue**

Corvinus University of Budapest, Main Building  
Registration, Plenary Sessions: Lecture room III (ground floor)  
Parallel Sessions: Room 3001 (third floor, when counting ground floor as zero)  
Fővám tér 8.  
Budapest, Hungary  
H-1093

### **Venue of Gala Dinner (by invitation or by registration)**

Hungarian Academy of Sciences  
Széchenyi István tér 9.  
Budapest, Hungary  
H-1051

### **Time Zone**

Central European Time (CET) is used in Hungary, Budapest is 1 hour ahead of Greenwich Mean Time (GMT).

### **Currency and Credit Cards**

Currently, 1 EUR = 310 HUF, 1 USD = 290 HUF. On a normal day those rates can change by 2-5 HUF. You can exchange money at all banks in Budapest. There are several ATM machines, which may be cheaper to withdraw money from using your debit or credit card, but this depends on your individual bank charges. Visa, MasterCard and American Express are widely accepted.

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