Abstract of the articles

UTILITY FUNCTIONS AND RISK NEUTRAL MEASURES
Péter Medvegyev

In the article I discuss some aspects of the derivative pricing theory. This theory played major role in the recent financial crises. The main concept of the theory of derivative pricing and the whole finance is the so called risk neutral measure. The main message of the theory is that it is sufficient to change the probability measure to the risk neutral measure and then calibrate the model parameters to the market. But using this methodology one introduces probabilistic metaphors to the finance which is some sense dangerous as the risk neutral measure is basically reflecting the preferences which can change quickly.

INTRODUCTION AND ANALYSIS OF THE BUDAPEST LIQUIDITY MEASURE
Ákos Gyarmati– Márton Michaletczky–Kata Váradi

In our study we introduce the Budapest Liquidity Measure (BLM), which is a liquidity measure that quantifies liquidity as the implicit cost – sum of the liquidity premium and the adverse price movement – of trading. Our main goal was to introduce and compare this measure with other well known liquidity measures, and show the possible applications of this indicator.

The application of the Budapest Liquidity Measure (BLM)
– Liquidity risk in VaR measures
Ákos Gyarmati– Márton Michaletczky–Kata Váradi

We introduce the Budapest Liquidity Measure (BLM) and one of its possible applications in the field of risk management. BLM is a weighted spread measure, it represents the implied costs of trading, which arise from the fact that actual trading is not executed on mid-price.
Traditional VaR measures cover only the risk of the changing mid-price, they ignore the liquidity risk arising from the buying and selling of a position. With the use of BLM we show, how to integrate liquidity risk into the VaR-framework. While our method has already been introduced, it has never been tested on the Hungarian market. Also we make several suggestions how could the original model be improved.
In our analysis we use the data of the stocks of the Hungarian Stock exchange, and find that even in the case of the most liquid stocks and smallest positions, the daily VaR measures can rise by up to 4%, while if we consider less liquid stocks the growth can be up to 10% if liquidity risk is taken into account.

MARKET MICROSTRUCTURE THEORY AND LIQUIDITY
Márton Michaletczky

The purpose of this paper is threefold. First, it briefly gives a short summary of the basic results in the literature of market microstructure theory. The central notion of market microstructure theory is the process by which the price for an asset is determined, so that equilibrium is reached. This aspect was somewhat neglected by neoclassical economics. Market microstructure theory analyzes how information asymmetry, heterogeneous market participants and market structure have on price formation, trading bahavior and trading costs. Second, the paper presents the most important results of the seminal papers by Kyle and Glosten and Milgrom. We also discuss the Back-Baruch paper, which provides a unified framwork for the two models discussed above. Third, we give a short summary of the bid-ask spread models. Throughout the paper the results of market micsrostructure theory are discussed with attention to what they reveal regarding the liquidity of financial markets.

DETERMINANTS OF HUNGARIAN FORINT FX SWAP SPREADS AFTER THE LEHMAN CRISIS
Csaba Csávás–Rezső Szabó

In this paper we analyze the drivers of HUF FX swap spreads (CIP deviation). The main aim is to analyze the impact of the FX swap instruments introduced by the central bank of Hungary. A further objective is to answer whether the spreads are moved by risk or foreign currency liquidity related factors. For the calculation of FX swap spreads we use a data set which contains FX swaps by transactions. For the period October 2008 – June 2010, we find evidence that both short (1-day) and long FX swap spreads are affected by variables related to global risk aversion, to counterparty risk and to the availability of foreign currency liquidity. The effect of the central bank instruments is also significant, the application of both 1-day and long-term FX swaps contributed to the decline of market-traded FX swap spreads.

STRUCTURE OF LIQUIDITY MEASURES
Barbara Dömötör–Zita Marossy

Liquidity is measured from different aspects (e.g. tightness, depth, and resiliency) by different ratios. We studied the co-movements and the clustering of different liquidity measures on a sample of the Swiss stock market. We performed a PCA to obtain the main factors that explain the cross-sectional variability of liquidity measures, and we used the k-means clustering methodology to define groups of liquidity measures. Based on our explorative data analysis, we formed clusters of liquidity measures, and we compared the resulting groups with the expectations and intuition. Our modelling methodology provides a framework to analyze the correlation between the different aspects of liquidity as well as a means to define complex liquidity measures.

RISK CAPITAL ALLOCATION IN CASE OF ILLIQUID PORTFOLIOS

Dóra Balog–Péter Csóka–Miklós Pintér

Measuring and allocating risk properly are crucial for performance evaluation and internal capital allocation of portfolios held by banks, insurance companies, investment funds and other entities subject to financial risk. We argue that the axioms of coherent measures of risk are valid for illiquid portfolios as well. Then, we present the results of two papers on allocating risk measured by a coherent measure of risk. Assume a bank has some divisions. According to the first paper there is always a stable allocation of risk capital, which is not blocked by any coalition of the divisions, that is there is a core compatible allocation rule (we present some examples for risk allocation rules). The second paper considers two more natural requirements, Equal Treatment Property and Strong Monotonicity. Equal Treatment Property makes sure that similar divisions are treated symmetrically, that is if two divisions make the same marginal risk contribution to all the coalition of divisions not containing them, then the rule should allocate them the very same risk capital. Strong Monotonicity requires that if the risk environment changes in such a way that the marginal contribution of a division is not decreasing, then its allocated risk capital should not decrease either. However, if risk is evaluated by any coherent measure of risk, then there is no risk allocation rule satisfying Core Compatibility, Equal Treatment Property and Strong Monotonicity, we encounter an impossibility result.