

*Pflichtlektüre für Wirtschaftswissenschaftler:
Professor Marliese Uhrig-Homburg und ihr Mitarbeiter
Philipp Schuster lesen die Börsen-Zeitung*

*A must read for economists:
Professor Marliese Uhrig-Homburg and her assistant
Philipp Schuster are reading the Börsen-Zeitung*

Financial Crisis – A Topic of Research

KIT Scholars Investigate
the Liquidity of Securities

BY HEIKE MARBURGER // TRANSLATION: RALF FRIESE
FOTOS: IRINA WESTERMANN



Forschungsobjekt Finanzkrise

KIT-Wissenschaftler untersuchen die Liquidität
von Wertpapieren

Chaos at the stock exchanges, economic recession, bail-out packages – these terms originated from the financial crisis and have since gone into general use. Despite all this public attention, many questions associated with the most recent economic crisis have not been answered completely, among them the question about its root causes. KIT scholars are investigating the topic. Professor Marliese Uhrig-Homburg and her co-worker, Philipp Schuster, of the KIT Chair of Financial Engineering and Derivatives conduct research into the causes and phenomena of liquidity crises, among other subjects, within the framework of a new DFG project.

Börsenchaos, Rezession und Rettungspakete – diese Begriffe sind inzwischen jedem geläufig, sie sind hervorgegangen aus der Finanzkrise. Doch trotz der öffentlichen Aufmerksamkeit wurden viele Fragen zu der jüngsten Wirtschaftskrise nicht vollständig beantwortet, unter anderem, wie es dazu kommen konnte. Professorin Marliese Uhrig-Homburg und ihr Mitarbeiter Philipp Schuster forschen am KIT-Lehrstuhl für Financial Engineering und Derivate im Rahmen eines neuen DFG-Projekts unter anderem zu den Ursachen und Begleiterscheinungen von Liquiditätskrisen.

„Der Zusammenbruch der Investmentbank Lehman Brothers im September 2008 entfachte eine weltweite Liquiditätskrise, die den Wohlstand vieler Anleger vernichtet hat. Der Grund war, dass plötzlich eine ganze Reihe von Wertpapieren nur noch unter großen Preisabschlägen gehandelt wurde, weil niemand mehr genau wusste, welcher Wert darin steckte. Daraufhin kam es auch außerhalb der USA zu destabilisierenden Preisschwankungen in den Finanzmärkten. In Deutschland wurden beispielsweise staatsgarantierte Anleihen der Kreditanstalt für Wiederaufbau nur mit deutlichen Abschlägen gegenüber Staatsanleihen gehandelt“, erläutert Uhrig-Homburg die Ausgangslage ihres Projekts. Genau an dieser Krisensituation erforschen die Wirtschaftswissenschaftler nun, wie sich die Illiquidität von verschiedenen Wertanlagen verhält. ■

“The crash of the Lehman Brothers investment bank in September 2008 sparked off a world-wide liquidity crisis which annihilated the assets of many investors. The reason was that, all of a sudden, a number of securities were traded only at considerable price reductions because nobody knew exactly the value they contained. As a consequence, destabilizing price fluctuations in the financial markets occurred also outside the United States. In Germany, for instance, bonds guaranteed by the government and issued by the Kreditanstalt für Wiederaufbau were traded with clear discounts compared to government bonds,” Professor Uhrig-Homburg explains with regard to their project’s point of departure. In this crisis situation, the economist and her colleague now study the pattern of illiquidity of various investments. Their project is to explain when markets are liquid, and what economic factors influence liquidity. “What are the driving forces behind those phenomena? And, once they have been found, we want to be able to tell in which phases markets must be assumed to be liquid or illiquid.” The findings made in this way finally could be used to discover what could be done by central banks and governments to prevent illiquidity of securities from rising and, in this way, to counteract crises. This is the hope of Philipp Schuster, who wrote his diploma thesis on the subject.

Schuster also explains how some initial research findings were made: The illiquidity premium, which is the difference between the yield of an

illiquid and a liquid security, had been estimated by comparing a variety of bond data. “We took government bonds as the liquid reference point. These are available on the market to the tune of hundreds of billions of euro. Then we compared the data of federal bonds with those of the bonds issued by the Kreditanstalt für Wiederaufbau. The fundamental risk is the same in both cases, but there are considerably fewer KfW bonds, which is why they are less well known among investors. As a consequence, the market, for instance, considers them illiquid. The difference in yields of these two securities then can be used to read the demands of investors for illiquidity or liquidity, and the times when this premium is high or low. We measured this difference over a long period of time,” explains Schuster. During the financial crisis, this difference had been extremely great, as had been the case in other crisis situations, such as after the dotcom bubble had burst, adds Uhrig-Homburg. Times of high or highly fluctuating illiquidity premiums lend themselves particularly well to identifying underlying factors.

“When you want to measure the illiquidity premium you need two instruments which differ only by the liquidity factor and are otherwise identical. If there were other differences, you could not tell whether the difference in prices was due to some other factor. So we are in an ideal situation, thanks to the comparison between KfW bonds and government bonds. It would have been much more difficult on the

stock market, which is the reason why we are studying the bond market,” explains Uhrig-Homburg.

But why is the most recent financial crisis offering the ideal point of departure for the DFG project? The crisis impressively highlighted the real consequences of illiquidity risks. “It is still not clear how unforeseen fluctuations in the economic cycle affect the illiquidity premium. Also the question, which is important from a social policy point of view, how interventions by the central bank affect premiums, has not yet been answered.” The ultimate objective was to learn from experience with past crises and use research findings to draw politically relevant conclusions.

To gather additional expertise for the project and add to the visibility of their research findings, Marliese Uhrig-Homburg and Philipp Schuster collaborate on the project with a scholar at Columbia University. “We jointly study also potential interactions with U.S. government bonds.” This was a factor of acute political interest because the recent worldwide liquidity crisis had originated in the U.S.A. and, over time, had also infected other countries, explains the economist. The DFG funded this collaboration through a Mercator fellowship. “His macro-economic expertise ideally supplements our skills, and we hope for long-term close cooperation,” says Marliese Uhrig-Homburg. ■

Contact: derivate@fbv.kit.edu

