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Lehrstuhl BWL, insb. Finanzierung und Banken

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1. LEITUNG

Prof. Dr. Peter Reichling

2. HOCHSCHULLEHRER/INNEN

Prof. Dr. Peter Reichling

3. FORSCHUNGSPROFIL

- Performancemessung
- Bestimmung eines unverzerrten Maßes zur Performance-Attribution
- Performance von Minimum-Varianz-Strategien
- Bewertung von Krediten und Kreditderivaten
- Bestimmung des Spreads für bonitätsrisikobehaftetes Fremdkapital
- Unternehmensbewertung bei Ausfallrisiko
- Informationseffizienz von Ratings
- Rating-Accuracy
- Vorhersagekraft von Ratings und Volatilitäten

4. FORSCHUNGSPROJEKTE

Projektleitung: Prof. Dr. Peter Reichling
Projektbearbeitung: Anastasiia Zbandut
Förderer: Haushalt - 01.09.2016 - 30.09.2023

Pricing on Cryptocurrencies

With the first decentral blockchain project Bitcoin in 2008, the eco system of the digital money world faced accelerating development. Now, there more than 7,000 different cryptocurrencies traded around the world and around the clock. Growing popularity in not only investing activities as well as its public and free access to vast amount on various data starting from price history, blockchain related data, social activities and even anonymous records on all wallet addresses, motivated researches worldwide to test the well-established financial theory on a new financial market. The most prominent question in this field is how to price a cryptocurrency? There is strong evidence that the behaviour of cryptocurrency prices differs from those of stocks. Most asset pricing models developed to explain stock price differences, fail to explain differences in cryptocurrency prices. Härdle/Harvey/Reule 2020 one of the first to offer a classification of cryptocurrencies depending not only on its consensus mechanism, but rather the purpose and use of a particular cryptocurrency. With this classification, authors highlight the fact that cryptocurrencies should not be allocated into one basket and that there are fundamental differences that should be accounted for when establishing an asset pricing model. This research contributes to the fast-growing literature in pricing on cryptocurrencies by considering cryptocurrency specific characteristics related to its blockchain, such as hash rate, share of active addresses and share of large investments as well as influences of social media, i.e. amount of reddit comments. Additionally, the

analysis takes into consideration variables representing the cryptocurrency market as a whole, these are the performance of the cryptocurrency market portfolio, size premium and traded volume. Moreover, this is the first paper that includes explanatory variables into the AR-(E/GJR) GARCH model in attempt to find common and cryptocurrency specific factors that play a role in pricing these assets.

Projektleitung: Prof. Dr. Peter Reichling
Projektbearbeitung: M.Sc. Gunnar Niemann
Förderer: Haushalt - 01.10.2020 - 30.09.2023

The performance of active portfolio management strategies

In comparison to passive investment strategies, active portfolio management covers quantitative methods to generate superior returns and manage risk effectively. While passive portfolio management is known to be well performing especially in the long-term, active investment strategies react too little or too late to new market information and are too complex for applications on the private investors side. Therefore, this research project examines the field of active portfolio management and its core components. In addition, investors' willingness to participate at the stock market as well as their time-varying risk aversion are analyzed in the field of household finance.

Projektleitung: Prof. Dr. Peter Reichling
Projektbearbeitung: M.Sc. Dennis Dreusch
Förderer: Haushalt - 01.09.2020 - 31.08.2023

The response of banks' capital structure to changes in the relative tax advantage of debt

Financial intermediaries, compared to non-financial companies, are characterized by a highly levered capital structure, raising concerns about their stability within periods of economic turbulence. Therefore, regulatory authorities recently encourage the reinforcement of equity and, hence, seek to prevent distress and failure. An important but often overlooked determinant of the capital structure is the tax deductibility of debt. This project analyzes if a reduction in the tax advantage of debt might serve as an instrument to significantly increase the equity portion in the banking industry and, thereby, contribute to a sounder financial system. Assumed that the reduction of the tax advantage of debt changes the capital structure, the project proceeds to investigate the impact of this change related to the profitability and competitiveness in the banking industry.

Projektleitung: Prof. Dr. Peter Reichling
Projektbearbeitung: M.Sc. Anastasiia Zbandut
Förderer: Haushalt - 01.09.2016 - 30.09.2023

Expected Option Returns and Changes of Underlying Volatility

Derivative contracts, especially options, received their popularity in the early 80s and during the last two years trading activities in option market worldwide reached around \$ 22 billion contracts. The vast amount of theoretical and scientific research, starting with pioneering works by Black/Sholes 1973 and Merton 1973, is dedicated to the analysis of option price dynamics. One stream of the literature is focused on theoretical foundations to price options, where another stream is directed at the empirical evidence on how the risk (volatility) of the underlying influences option prices. Less extensive scientific research is done to investigate the dynamics of option returns. The aim of this research project is to empirically analyse the sensitivity of option returns towards changes in underlying volatility as well as its magnitude. This paper contributes to the existing literature in two dimensions. Firstly, the aggregate risk measure is decomposed into two components, i.e. systematic and idiosyncratic volatility, with the robust test applying EGARCH model to estimate the volatility. Secondly, this is the first analysis that takes into consideration not only the US market but also the EU market

option data.