



FernUniversität in Hagen



Open Universiteit

2nd Structured Retail Products and Derivatives Conference

May 23–25, 2024
Hagen



Bildnachweise

Foto Titelseite: Dirk Matull

Foto Seite 5: Hardy Welsch

Foto Seite 7: Privat

Contents

Welcome	5
Key Note Speaker	7
Timetable	9
Friday, May 24, 2024	9
Saturday, May 25, 2024	10
List of Abstracts	11
Friday, May 24, 2024	11
Saturday, May 25, 2024	20
List of Participants	25
Useful Information	27
Sponsor	31

Welcome



Dear colleagues,

It is a great pleasure for me to welcome you all to the University of Hagen for our 2nd Structured Retail Products and Derivatives Conference!

After the first conference in 2021 took place online, we are now looking forward to a real, non-virtual event with face-to-face meetings, interesting presentations and stimulating discussions. We have received a large number of high-quality submissions from around the world, which have enabled us to put together a very promising program of academic talks for the two days of the conference.

Since we all share a common interest in derivatives research, we hope that you will all gain new insights from the various presentations and, in turn, be able to provide your own input to the presenters based on your professional background. For this reason, we have refrained from assigning individual discussants to the presentations, hoping for fruitful discussions with the entire audience.

I wish you an inspiring conference, full of interesting things to discuss and new ideas to think about!

Rainer Baule

Key Note Speaker



Neil Pearson is the Harry A. Brandt Distinguished Professor of Financial Markets and Options at the University of Illinois at Urbana-Champaign and Research Fellow of the Canadian Derivatives Institute. He has published numerous papers in the top-tier finance journals and is one of the leading scholars in the field of derivatives, especially structured products.

We are very pleased that Professor Pearson will be delivering the keynote address titled "**Structured Products: What We Know, and What We Would Like to Know**" at our conference.

Timetable

Friday, May 24, 2024

08:30-08:45	Registration in front of the seminar rooms	
08:45-09:00	Welcome Address, Room 4/5	
	Session 1A, Room 4/5 Chair: Jianfeng Hu	Session 1B, Room 6 Chair: Manuela Pedio
09:00-09:30	A new look at equity premium predictability and option-implied moments Marco Kerkemeier	Betting on Elusive Returns: Retail Trading in Complex Options Yanbin Wu
09:30-10:00	Sentiment and the equity options market Gregor Weiß	Product Complexity, Investor Experience, and Returns Pedro Saffi
10:00-10:30	The Stock Market Impact of Volatility Hedging: Evidence from End-of-Day Trading by VIX ETPs Thomas Kokholm	A Real Cost of Free Trades: Retail Option Trading Increases the Volatility of Underlying Securities Davide Tomio
10:30-11:00	Coffe Break in front of the seminar rooms	
	Session 2A, Room 4/5 Chair: Pedro Saffi	Session 2B, Room 6 Chair: Martin Wallmeier
11:00-11:30	Bitcoin return predictability on option expiration days Dustin Weiss	Who should buy structured product and when? Manuela Pedio
11:30-12:00	The On-Chain Options Risk Premia Andrea Andolfatto	Overpaid Lottery and Overpaid Insurance: Evidence from Retail Structured Products Gang Li
12:00-12:30	The sustainability challenge for synthetically replicated ETFs in Europe Irina Bevza	Can you trust the numbers? A model-free assessment of misleading cost disclosures for retail derivatives under the PRIIPs regulation David Shkel
12:30-13:30	Lunch, Mensa, Building 4	
	Keynote Address, Room 4/5	
13:30-14:30	Structured Products: What We Know, and What We Would Like to Know Neil Pearson	
14:30-15:00	Coffe Break in front of the seminar rooms	

	Session 3A, Room 4/5 Chair: Thomas Kokholm	Session 3B, Room 6 Chair: Stephen Szaura
15:00-15:30	Option Factor Momentum Mathis Mörke	FinTech, Search Costs, and Competition Simon Straumann
15:30-16:00	Options Market Makers Jianfeng Hu	Performance of Novel Underlyings of Swiss Structured Products Patrick Kerl
16:00-16:30	Transition risk premiums in option prices Lennart Sperling	Do retail investors care about sustainability? Preference for and pricing of sustainable SRPs Falk Jensen
From 18:30	Conference Dinner, Restaurant Enotria, Emilienplatz 9, 58097 Hagen	

Saturday, May 25, 2024

	Session 4A, Room 4/5 Chair: Gregor Weiß	Session 4B, Room 6 Chair: Gang Li
09:00-09:30	Retail Traders Love ODTE Options... But Should They? Heiner Beckmeyer	Speculation in bearish commodity markets : The role of liquidity Chanaka Ganepola
09:30-10:00	A Bayesian SDF for Equity Options Niklas Käfer	Testing for speculative oil price bubbles based on futures market data Robinson Kruse-Becher
10:00-10:30	Skewness Premium for Short-Term Exposure to Squared Market Return Martin Wallmeier	
10:30-11:00	Coffe Break in front of the seminar rooms	
	Session 5A, Room 4/5 Chair: Robinson Kruse-Becher	
11:00-11:30	Why do HFTs use the Futures Market Anirban Banerjee	
11:30-12:00	Blame it on the weather: Market implied weather volatility and firm performance Stephen Szaura	

Friday, May 24, 2024

Session 1A, 09:00-10:30, Room 4/5

A new look at equity premium predictability and option-implied moments

Norbert Fay¹, Marco Kerkemeier¹, Rainer A. Schüssler²

¹ University of Hagen

² University of Rostock

It has been shown in recent years that the variance risk premium (VRP) has strong predictive power for the future equity premium. The goal of our research is to improve the VRP-based prediction of the equity premium by relying on a technique called entropic tilting. Our starting points are baseline Bayesian predictive densities for next month's equity premium obtained from time-varying parameter models and based on the standard predictors from Welch and Goyal (2008). The key idea is to tilt the baseline density by using additional information about the first two moments based on the refined estimation of the VRP by Pyun (2019) based on high-frequency data. The equity premium is forecasted based on the VRP. Thereby, we blend econometric forecasting models with forward-looking information from option price data which leads to higher forecasting accuracy measured by the likelihood of the actual value.

Sentiment and the equity options market

Sonja Warkulat¹, Matthias Pelster¹, Gregor Weiß²

¹ Duisburg-Essen University

² Leipzig University

We show that firm-specific social media sentiment can predict the cross-section of delta-hedged call option returns. A long-short strategy that buys calls with the least positive stock sentiment and shorts calls with the most positive sentiment earns significant abnormal returns. Sentiment is distinct from established determinants of option returns. The impact of sentiment on call option returns is larger for smaller firms, compared to larger firms, and more pronounced in recent years, in line with the observation that retail investors increasingly engage in the (call) option market.

The Stock Market Impact of Volatility Hedging: Evidence from End-of-Day Trading by VIX ETPs

Christine Bangsgaard¹, Thomas Kokholm^{1,2}

¹ Aarhus University

² Danish Finance Institute

We show that firm-specific social media sentiment can predict the cross-section of delta-hedged call option returns. A long-short strategy that buys calls with the least positive stock sentiment and shorts calls with the most positive sentiment earns significant abnormal returns. Sentiment is distinct from established determinants of option returns. The impact of sentiment on call option returns is larger for smaller firms, compared to larger firms, and more pronounced in recent years, in line with the observation that retail investors increasingly engage in the (call) option market.

Session 1B, 09:00-10:30, Room 6

Betting on Elusive Returns: Retail Trading in Complex Options

Andy Naranjo, Mahendrarajah Nimalendran, Yanbin Wu

University of Florida

It has been shown in recent years that the variance risk premium (VRP) has strong predictive power for the future equity premium. The goal of our research is to improve the VRP-based prediction of the equity premium by relying on a technique called entropic tilting. Our starting points are baseline Bayesian predictive densities for next month's equity premium obtained from time-varying parameter models and based on the standard predictors from Welch and Goyal (2008). The key idea is to tilt the baseline density by using additional information about the first two moments based on the refined estimation of the VRP by Pyun (2019) based on high-frequency data. The equity premium is forecasted based on the VRP. Thereby, we blend econometric forecasting models with forward-looking information from option price data which leads to higher forecasting accuracy measured by the likelihood of the actual value.

Product Complexity, Investor Experience, and Returns

*Alan De Genaro*¹, *José Liberti*², *Pedro A. C. Saffi*³, *Jason Sturgess*⁴

¹ FGV EAESP

² Northwestern University

³ University of Cambridge

⁴ Queen Mary University of London

The retail market for structured financial products has experienced substantial growth, accumulating trillions of dollars in assets worldwide since the 1990s. Concerns raised by regulatory bodies highlight the need for better investor protection in these markets that promote complex financial products. Using unique micro-data from the Brazilian Securities and Exchange Commission, this article investigates the relationship between product complexity, investor sophistication, and investor returns. We show that, on average, complex products yield lower returns. Sophisticated investors with greater experience in financial markets exhibit greater returns than unsophisticated investors, both on average and when investing in more complex products. Notably, independent brokers play a role in certifying complex products by mitigating rent-seeking behavior associated with lower-quality issuers. The study contributes to the ongoing discourse on regulating complex financial products.

A Real Cost of Free Trades: Retail Option Trading Increases the Volatility of Underlying Securities

*Marc Lipson*¹, *Davide Tomio*¹, *Jiang Zhang*²

¹ University of Virginia

² University of St. Thomas

We examine the link between retail trading of options and the volatility of the underlying assets. Using Robinhood's introduction of options as a shock to retail trading, we confirm that option volume increased around this event and show that volatility increased for: optioned US-listed securities relative to their optionless Canadian cross-listings; optioned share classes relative to optionless share classes for firms with dual class shares; and more so for shares that would be become more attractive to retail traders as a result of a fee change (relatively high stock prices or low option prices based on sorts prior to the Robinhood window we examine). We also provide evidence that the underlying mechanism is related to market makers hedging their retail-trading-induced option exposure: market maker trading activity and retail trading imbalances increase around the Robinhood event. We also show that spreads and price impacts are lower, consistent with an increase in uninformed trading activity. Our results suggest that retail trading of options generates an increase in the volatility of the optioned securities due to the actions of market makers hedging their retail trading exposure.

Session 2A, 11:00-12:30, Room 4/5

Bitcoin return predictability on option expiration days

Robert Gaudiosi, Dustin Weiss, Z. Ivy Zhou

University of Wollongong

Over 90% of bitcoin option trading volume is concentrated on the self-regulated Deribit exchange that lists daily, weekly, and monthly options. This paper documents evidence of economically significant returns directly around the expiration time of these options. Net selling of call options before expiry coinciding with a decrease in bitcoin spot price can be used to predict subsequent spot returns. Simple trading strategies that capitalise on this predictability yield a Sharpe ratio between 2 and 3. Return predictability in the spot market is most consistent with delta hedging by option market makers.

The On-Chain Options Risk Premia

Andrea Andolfatto¹, S. Naik², Lorenzo Schoenleber¹

¹ Bocconi University

² Independent

³ University of Turin

On-Chain options refer to option contracts, that are traded directly on a Decentralized Exchange on the Ethereum blockchain. We explain the functioning of this new market form, so-called automated market making for options trading, and report key associated quantities. We provide a comprehensive analysis of On-Chain options and compare their attributes, such as the fee structure, to their Off-Chain counterparts on centralized exchanges. We document an On-Chain risk premium emerging from the positive difference in implied volatility between On-Chain and Off-Chain options.

The sustainability challenge for synthetically replicated ETFs in Europe

Irina Bevza, Martha O'Hagan Luff

Trinity College Dublin

This research explores two key facets of the European ETF market: Europe's forefront position in sustainable investing and its global leadership in using synthetically structured ETFs. While physical ETFs replicate indices by directly acquiring constituent stocks, synthetic ETFs engage in total return swaps with counterparties, like investment banks. Stakeholders have expressed skepticism about synthetic structures due to counterparty default risks. Additionally, concerns about sustainability have arisen as some "sustainable" synthetic ETFs were found to have polluting companies as collateral. However, synthetic replication offers cost-effective solutions for ETF providers, especially smaller players, by outsourcing index-tracking to swap counterparties. Despite concerns, synthetic replication reduces tracking error compared to physical replication. The industry lacks clear guidelines for assessing sustainability risks in derivative portfolios. Urgent regulatory intervention is needed to address issues related to synthetic structures and sustain the development of sustainability trends without hindering ETF market competition.

Session 2B, 11:00-12:30, Room 6

Who should buy structured product and when?

Massimo Guidolin¹, Giacomo Leonetti¹, Manuela Pedio^{1,2}

¹ Bocconi University

² University of Bristol

Structured products in general, and investment certificates in particular have gained increasing popularity among retail investors over the last decade both in Europe and in the US. However, looking at the ex-post realized gains of retail clients investing in certificates, the existing body of literature has generally concluded that the high demand of those products is hard to rationalize. In this paper, we investigate whether a rational and informed investor with standard constant relative risk aversion (CRRA) preferences who optimally allocates her wealth among the risky and riskless assets could ex-ante expect to benefit from adding investment certificates to her portfolio. We show that the utility gains from investment certificates vary dramatically across the different structures, investment horizons and levels of risk aversion. Therefore, a correct assessment of the investors' risk tolerance and investment horizon is crucial when advising those products. We also find that the optimal demand of investment certificates as well as their benefits depends heavily on the asset pricing model, and they are considerably higher when the joint presence of jumps in returns and volatility is neglected. Therefore, the high demand of these products could be explained by the use of asset pricing models that are too simple.

Overpaid Lottery and Overpaid Insurance: Evidence from Retail Structured Products

Gang Li¹, Chu Zhang²

¹ Honk Kong Polytechnic University

² Hong Kong University of Science and Technology

The negative relationship between the first moment and the third moment of asset returns is often attributed to a lottery effect (i.e., overweight of the right tail of the return distribution). We show that overpaid insurance (i.e., overweight of the left tail) also drives such a relationship. Callable bull/bear contracts (CBBCs) have curtailed time values and small residual values when called back. The combination makes these products apparently cheap and favorable among retail investors. The negative association between expected returns and return skewness on CBBCs is more a result of overpaid insurance than overpaid lottery.

Can you trust the numbers? A model-free assessment of misleading cost disclosures for retail derivatives under the PRIIPs regulation

David Shkel

University of Hagen

Structured retail derivatives are tailor-made products designed to meet the specific needs of private investors. To ensure transparency, issuers are obliged to disclose the costs associated with the purchase of these products. Previous research indicates that, on average across portfolios, disclosed costs are accurate for many issuers. However, due to uncertainties in cost estimation, it remains unclear whether these costs are consistently and appropriately disclosed.

By employing a novel method to analyze retail derivatives, we can estimate costs with significantly reduced error compared to previous studies. Our findings reveal that while some issuers adequately disclose costs, others fall short. For some issuers, cost disclosure may be sufficient for smaller sub-portfolios, but overall, the disclosed costs tend to be too low. This discrepancy constitutes a clear violation of applicable European law.

Session 3A, 15:00-16:30, Room 4/5

Option Factor Momentum

Niclas Käfer, Mathis Mörke, Tobias Wiest

University of St. Gallen

We document profitable cross-sectional and time-series momentum in 56 option factors constructed from monthly sorts on daily delta-hedged option positions. Option factor returns are highly autocorrelated, but momentum profits of strategies with longer formation periods are mainly driven by high mean returns that persistently differ across factors. Momentum effects are the strongest in the factors' largest principal components, consistent with findings for stock factor momentum. Finally, we find a new form of momentum in options markets: momentum in single delta-hedged option returns. Option factor momentum fully subsumes option momentum, whereas option momentum cannot explain option factor momentum. Our findings provide insights into the channels that drive option momentum and have implications for designing profitable option trading strategies.

Options Market Makers

Jianfeng Hu¹, Antonia Kirilova², Dmitriy Muravyev³

¹ Singapore Management University

² CUNEF Universidad

³ Michigan State University

Options market makers (OMMs) are essential as they provide continuous two-sided quotes and facilitate most option trades. However, little is known about how they perform or manage risk. We use unique account-level data for KOSPI 200 index options and futures to identify and study 43 OMMs. While OMMs' strategies are surprisingly heterogeneous, they share several common features. First, OMMs are highly profitable and make money on most days. Second, although option investors are commonly believed to regularly delta-hedge in the underlying, we find that only four out of 43 OMMs delta-hedge and study delta-hedgers' strategies. Finally, OMMs quickly revert inventory positions to the desired level by providing liquidity with limit orders. Overall, OMMs primarily rely on active inventory rebalancing to manage risk.

Transition risk premiums in option prices

Rainer Baule, Lennart Sperling

University of Hagen

The economy is in a transition process to a low-carbon state. The risk that arises for stock prices due to the uncertainty about the progression of the transition process is referred to as transition risk. Option contracts can be used to hedge equity risks and hence, option prices contain information about the perception and pricing of risks induced by the transition process. Using a measure of transition risk at the individual firm level, the carbon beta developed by G6rger et al. (2020), we analyse delta-hedged returns and measures derived from option prices to examine the relationship between a firm's transition risk and option hedging costs. In contrast to the previous literature, we find a symmetric relationship for brown and green firms, implying that only the absolute value of a firm's exposure to the transition process, and not its sign, is relevant for the expensiveness of options. The increase in expensiveness is caused by several reasons, including higher physical volatilities as well as an increased anticipation of volatility risks for firms with a high absolute value of the carbon beta. We also study anticipated downside tail risks and find evidence that green firms with a negative carbon beta are exposed to higher risks of large value drops than brown firms.

Session 3B, 15:00-16:30, Room 6

FinTech, Search Costs, and Competition

Felix Fattinger¹, Simon Straumann²

¹ Vienna University of Economics and Business

² WHU - Otto Beisheim School of Management

We investigate the impact of a multi-issuer distribution platform on investor welfare in the Swiss equity structured products market, particularly focusing on "yield-enhancement products" favored by retail investors. Despite their popularity, these products face issues like complexity, mispricing, and conflicts of interest. Our analysis reveals that products offered through the platform consistently carry higher prices compared to identical products in the open market, indicating persistent mispricing. Even after controlling for various factors, we estimate that investors incur significant losses annually, exceeding CHF 2 billion, due to search costs. Notably, the potential welfare gains from reduced search costs are more pronounced during periods of market uncertainty and for complex products. These findings underscore the importance of increased competition among issuers providing quotes on the platform to further enhance investor welfare.

Performance of Novel Underlyings of Swiss Structured Products

Patrick Kerl

University of Trier

We analyse the performance of novel underlyings of Structured Products (SPs) issued in Switzerland between 2006 and 2019. By employing a paired-sample permutation test on mean return and variance of the underlyings before and after the listing of the first SP on them, we find that the performance is significantly worse after the listing than before it. This decrease is not present for structured products of all categories. The reductions persist when considering excess returns over a stock index. We also consider an alternative to novel underlyings, rare underlyings. Results are similar for both groups. Moreover, we find significant differences in the volatility of some categories of novel underlyings before and after the first listing date, but both significant increases and decreases of volatility are observed, depending on the category. We suggest two potential explanatory approaches for this phenomenon, the first being mean reversion, and the second being that issuers choose novel underlyings that are easy to market to unsophisticated investors.

Do retail investors care about sustainability? Preference for and pricing of sustainable structured retail products

Rainer Baule, Falk Jensen, David Shkel

University of Hagen

On the professional market sustainability has become an important factor for investment decisions. However the literature surrounding retail investors is thin in comparison. Structured retail products are products primarily marketed towards them by issuing banks. Their payoff profile can usually be replicated by an investment into an underlying together with some derivative component. It is possible for issuers to adjust premiums on these certificates to gain increased profits. Recently issuers of these products have started to market them as 'sustainable' for specific underlyings. This new information may have direct consequences for investment decisions if retail investors have sustainability preferences. It is however not a priori clear, which information regarding sustainability, if any, is used by retail investors. Although the validity of these labels is debatable, they do not impose information cost on retail investors and are a unique opportunity to analyze the change of investment behaviour on their introduction. By using a large set of exchange order data from the German market, we show that retail investment behaviour (i) is best explained by broader, non-specific sustainability measures, (ii) changes significantly by introducing 'sustainability labels', (iii) is only recently oriented towards sustainability, but (iv) issuers do not abuse this kind of additional demand.

Saturday, May 25, 2024

Session 4A, 09:00-10:30, Room 4/5

Retail Traders Love ODTE Options... But Should They?

Heiner Beckmeyer, Nicole Branger, Leander Gayda

University of Münster

Our study investigates the implications of trading in options that expire on the same day – so-called “ODTE” options – through the lens of retail investors. Almost the entire growth of trading in S&P 500 index options can be traced back to demand for ODTE options. We use recent exchange-related developments to identify option trades that originate from retail investors, and find that more than 75% of their trades in S&P 500 options today are in ODTE contracts. While retail investors benefit from significant price improvements in the form of lower effective spreads, they experience large losses on average: between February 2021 and September 2023, retail investors lost \$241,000 on an average day; since the introduction of a daily expiration calendar in May of 2022, this number has grown to average losses of \$350,000 per day. We find that single-leg trades, trades that require an upfront payment to be set up, and trades that use high-implied volatility options are responsible for these losses. In contrast, multi-leg trades and trades that capture the compensation for volatility and jump risks are significantly more profitable.

A Bayesian SDF for Equity Options

Niclas Käfer¹, Mathis Mörke¹, Florian Weigert², Tobias Wiest¹

¹ University of St. Gallen

² University of Neuchâtel

Building on Bryzgalova, Huang, & Julliard (2023), we conduct a Bayesian analysis of linear factor models for the stochastic discount factor (SDF) in the individual equity options market. In both cross-sectional and time-series out-of-sample tests, a Bayesian model averaging SDF outperforms reduced-form benchmark models in pricing option portfolios and option return anomalies. In line with results from stocks and corporate bonds, the space of factors spanning the risks and return drivers in the options market is dense. Notably, the difference between implied and realized volatility, option return momentum, and jump risk emerge as highly likely factors to be included in the SDF.

Skewness Premium for Short-Term Exposure to Squared Market Return

Martin Wallmeier

University of Fribourg

Following Kraus and Litzenberger (1976), skewness of stock returns is often modeled as exposure to squared market return. We implement this quadratic market model in a new way by using S&P 500 options. Our option trading strategy gives control over skewness while leaving other return characteristics of a direct index investment unchanged, which allows us to uniquely identify the skewness premium. We find a significantly negative premium in daily returns, which amounts to a return difference of 5 percentage points per year between a put-based strategy (negative skewness) and a call-based strategy (positive skewness). Our results suggest that the short-term exposure to squared market return is important for investors even though this exposure decreases sharply when returns are aggregated over months or quarters.

Session 4B, 09:00-10:00, Room 6

Speculation in bearish commodity markets : The role of liquidity

*Chanaka N. Ganepola*¹, *Beyza Mina Ordu-Akkaya*²

¹ University of Manchester

² University of Ankara

This paper analyses the possibility of speculative traders behaviour in commodity futures markets in the presence of liquidity constraints. We use a series of multinomial logistic models to discern the influence of speculators on the probability of explosive price episodes. Speculators taking short positions tend to increase the likelihood of negative bubbles in most commodities, while those with long positions often reduce the chance of positive bubbles. We also find that probability of negative bubbles are more sensitive to the net short positions held by money managers when both market and funding liquidity are constrained.

Testing for speculative oil price bubbles based on futures market data

Robinson Kruse-Becher

University of Hagen

Large fluctuations in oil prices can have significant economic and political implications. There is an ongoing debate regarding the drivers of these temporary explosive prices. The important question whether they are caused by a speculative bubble or driven by supply or demand shocks is not only relevant to participants in commodity markets, e.g. oil producers and investors, but also to financial regulators, governments and economic policy makers. In our empirical study, we test for speculative bubbles in the oil market without using unobserved and potentially misspecified market fundamentals, but rather exploit market expectations based on futures prices. Previous research found no evidence for a speculative bubble. In this study, we revisit this question by considering alternative expectation measures based on futures prices and other sources and include the most recent surge in oil prices in 2022. We also investigate the role of time-varying risk premia in the context of speculative bubbles.

Session 5A, 11:00-12:00, Room 4/5

Why do HFTs use the Futures Market

Anirban Banerjee¹, Ashok Banerjee²

¹ Indian Institute of Management Ahmedabad

² Indian Institute of Management Udaipur

This study attempts to investigate the economic motivation of HFTs to use single-stock futures contracts. Using a novel intraday dataset from the largest exchange of single-stock futures, with identifiers for algorithmic traders, we attempt to disentangle the hedging and information-based trading motivations of HFTs in using this market. We find that hedging is the primary motivation for HFTs to use the futures market. We also find that the regulatory change of upward revision of the minimum contract size in the derivative market made it more difficult for the HFTs to use the futures to hedge their spot market exposure effectively.

Blame it on the weather: Market implied weather volatility and firm performance

*Joon Woo Bae*¹, *Yoontae Jeon*², *Stephen Szaura*³, *Virgilio Zurita*⁴

¹ Case Western Reserve University

² McMaster University

³ BI Norwegian Business School

⁴ Baylor University

We introduce a novel measure of weather risk implied from weather options' contracts. WIVOL captures risks of future temperature oscillations, increasing with climate uncertainty about physical events and regulatory policies. We find that shocks to weather volatility increase the likelihood of unexpected costs: a one-standard deviation change in WIVOL increases quarterly operating costs by 2%, suggesting that firms, on average, do not fully hedge exposures to weather risks. We estimate returns' exposure to WIVOL innovations and show that more negatively exposed firms are valued at a discount, with investors demanding higher compensations to hold these stocks. Firms' exposure to local but not foreign WIVOL predicts returns, which confirms the geographic nature of weather risks shocks.

List of Participants

Name	Surname	Institution	Talk/Chair
Andrea	Andolfatto	Bocconi University	Session 2A
Anirban	Banerjee	Indian Institute of Management Ahmedabad	Session 5A
Rainer	Baule	University of Hagen	
Heiner	Beckmeyer	University of Münster	Session 4A
Irina	Bevza	Trinity College Dublin	Session 2A
Florian	Borchard	University of Hagen	
Oliver	Entrop	University of Passau	
Bart	Frijns	Open University of the Netherlands	
Chanaka	Ganepola	University of Manchester	Session 4B
Sebastian	Geissel	Trier University of Applied Sciences	
Edward	Hart	Macquarie Bank	
Jianfeng	Hu	Singapore Management University	Session 1A, 3A
Falk	Jensen	University of Hagen	Session 3B
Niclas	Käfer	University of St.Gallen	Session 4A
Marco	Kerkemeier	University of Hagen	Session 1A
Patrick	Kerl	University of Trier	Session 3B
Thomas	Kokholm	Aarhus University	Session 1A, 3A
Robinson	Kruse-Becher	University of Hagen	Session 4B, 5A
Gang	Li	Hong Kong Polytechnic University	Session 2B, 4B
Jasmin	Mazurek	University of Hagen	
Mathis	Mörke	University of St.Gallen	Session 3A
Neil	Pearson	University of Illinois at Urbana-Champaign	Keynote
Manuela	Pedio	University of Bristol	Session 1B, 2B
Philip	Rosenthal	University of Hagen	
Pedro	Saffi	University of Cambridge	Session 1B, 2A
David	Shkel	University of Hagen	Session 2B
Lennart	Sperling	University of Hagen	Session 3A
Simon	Straumann	WHU - Otto Beisheim School Of Management	Session 3B
Stephen	Szaura	BI Norwegian Business School	Session 3B, 5A
Davide	Tomio	University of Virginia	Session 1B
Martin	Wallmeier	Universit of Fribourg	Session 2B, 4A
Niklas	Wasielewski	University of Hagen	
Dustin	Weiss	University of Wollongong	Session 2A
Gregor	Weiß	Leipzig University	Session 1A, 4A
Yanbin	Wu	University of Florida	Session 1B

Useful Information

Talks will take place in Room 4/5 and Room 6 in Building 2 (map on the next page). The rooms are located directly next to each other on the second floor of the building and are both barrier-free. The building is situated on a slope and can be accessed from the ground floor and the second floor. Signposts will show the way.

Coffee breaks will be offered in the open space in front of the seminar rooms. **Lunch** will be served in the Mensa in Building 4, directly opposite the main conference building.

Each **presentation** will have a time slot of 30 minutes, roughly divided into about 20 minutes for the presentation and about 10 minutes for questions.

The **conference dinner** will be held at the "Restaurant Enotria", at Emilienplatz 9, 58097 Hagen. It can be reached in 15 minutes from the campus by bus line 515 in the direction of Hagen Hauptbahnhof (Hagen main station). The bus stop is called Emilienplatz and is directly opposite the restaurant. Alternatively, it is a leisurely 25-30 minute walk down the hill from the campus.

Wi-Fi will be available during the conference throughout the campus via the eduroam network. Alternatively, you will find access data to the campus network of the University of Hagen in your name badge.

A **special issue** of the Journal of Futures Markets is dedicated to the conference. Presenters are invited to submit their papers for this special issue. The submission window opens on June 3, 2024 and closes on July 15, 2024. All submissions will go through the journal's normal review process.

Venue

The conference site is the main campus of the FernUniversität (University of Hagen), Universitätsstraße 47, 58097 Hagen, Germany.

It can be reached by bus lines 515 and 540. The bus stop is called FernUniversität.

There are also plenty of free parking spaces available. The nearest parking lot for the welcome reception is P8 and the nearest parking lot for the conference itself is P3.

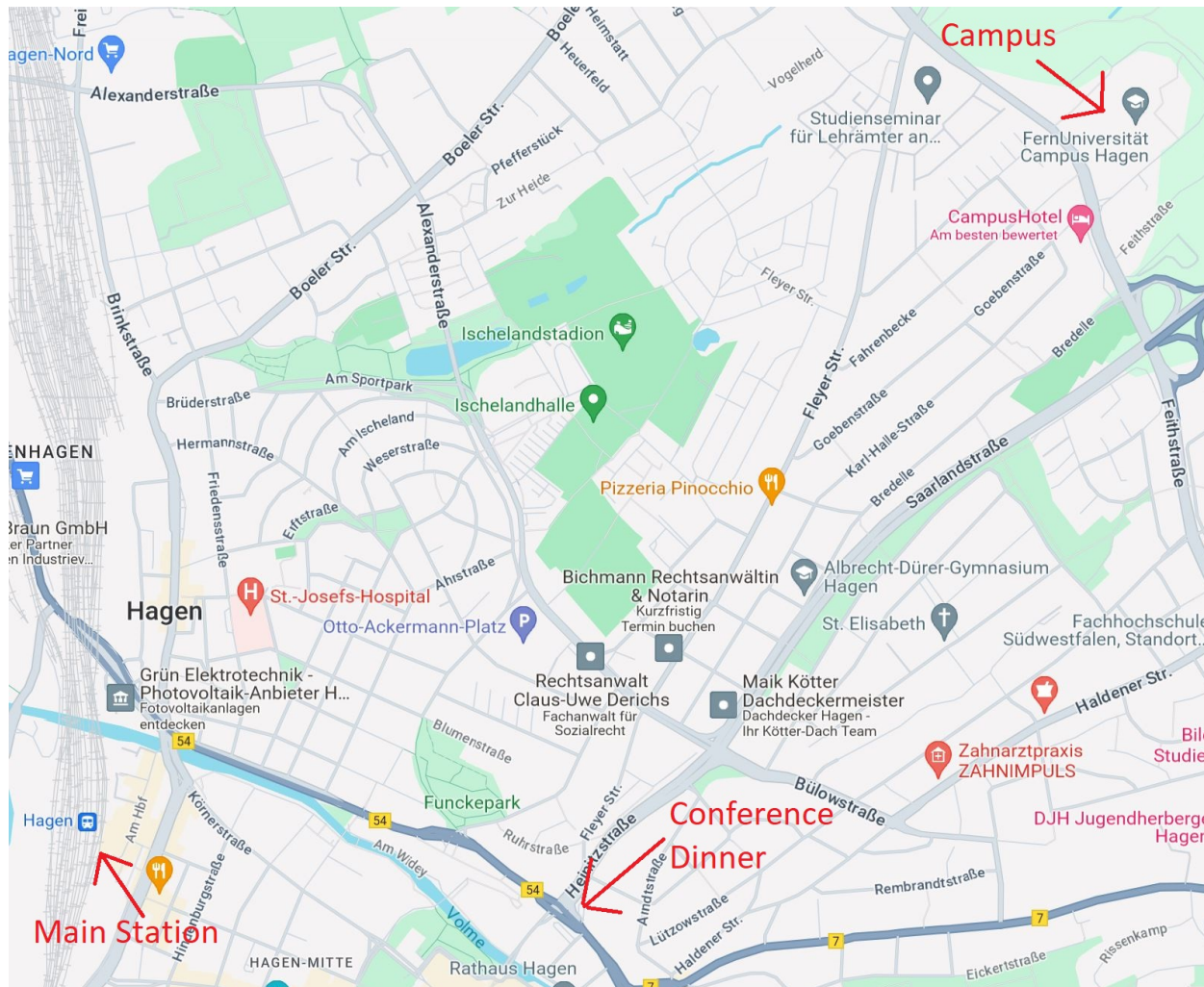
The conference will be held in Building 2. The welcome reception takes place in Building 8 and lunch on Friday will be in Building 4.



Surroundings

Some important addresses in the area are:

- Main campus: Universitätsstraße 47, 58097 Hagen
- Main station: Berliner Platz, 58089 Hagen
- Restaurant Enotria: Emilienplatz 9, 58097 Hagen



Sponsor

We thank our sponsor Märkische Bank Stiftung for supporting the 2nd Structured Retail Products and Derivatives Conference.



