

Daniil Gerchik

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EDUCATION

Frankfurt School of Finance & Management

Ph.D. in Finance

Frankfurt, Germany

September 2020 – Present

- Grade: 1.4 (German scale; 1.0 best)
- Supervisor: Prof. Grigory Vilkov

Yandex School of Data Analysis

Machine Learning & Data Science program (M.Sc.-equivalent)

Online

September 2024 – Present

- Coursework: Data Structures & Algorithms, Discrete Math, Python, Machine Learning, Statistics

National Research University “Higher School of Economics”

M.Sc. in Financial Economics, in cooperation with LSE, with distinction

Moscow, Russia

September 2015 – June 2017

- GPA: 8.4/10; rank 4/42
- Master’s thesis: *Theory and Analysis of the PIN Measure*, under supervision of Prof. Alex Boulatov

National Research University “Higher School of Economics”

B.Sc. in Mathematical Economics

Moscow, Russia

September 2011 – June 2015

- GPA: 7.8/10

RESEARCH INTERESTS

Empirical asset pricing; option markets and volatility; machine learning.

WORKING PAPERS

- **Intraday Volatility-Smile Geometry and Option Returns**

Abstract: The cross-strike geometry of the implied-volatility smile predicts 30-minute equity option returns. Smiles that are more sharply curved or show larger cross-strike deviations are followed by higher returns; at-the-money options priced rich relative to the fitted smile mean-revert. Yet the same signals carry no information about the underlying stock over the same horizon, and a return decomposition rules out a dominant underlying-move channel. The spreads survive controls for past option returns and standard liquidity proxies. They concentrate in the final half-hour of the session and are largest in stocks where open positions cluster at a small number of strikes, consistent with rebalancing of concentrated inventory toward the close. The cross-strike dimension of the option market has its own short-horizon dynamics, distinct from the behavior of the underlying stock.

- **Factor Dispersions**

with Vittorio Ruffo, Lorenzo Schönleber, Grigory Vilkov

Abstract: Dispersion strategies capture the difference in variance dynamics between a basket and its components. Even though smart-beta indices intend to load heavily on a particular factor, factor dispersions based on such baskets are exposed to risks of other factors and idiosyncratic variances. Analyzing factor dispersions through a linear factor model and equicorrelation representations, we recover driving forces behind dispersion dynamics and work out an attribution of a dispersion risk premium. As a balanced combination of systematic and idiosyncratic variance components, dispersion and its risk premium provide signals about future changes in systematic and alpha-based investment opportunities.

WORK IN PROGRESS

- **When the Chair Speaks: Communication and the FOMC Announcement Premium**

Abstract: The modern FOMC announcement day contains two distinct public communications: the written statement and the Chair's live press conference. Using intraday changes in option-implied volatility to measure firm-level exposure separately across these two windows, I show that the FOMC announcement premium in the cross-section of equity returns is concentrated in the press-conference window. From 2018 onward, firms more exposed to press-conference news outperform less exposed firms by 106 basis points per event, with the average return earned across the broader FOMC day rather than only inside the press-conference hour. A measure estimated from the statement through the press conference is weaker and adds little once the press-conference window is isolated. The premium is concentrated among high-valuation, low-leverage firms, and the return gap between high- and low-exposure firms is sharpest when press-conference surprises are dovish.

- **Dispersion Markets and the Price of Relative News**

with Vittorio Ruffo, Lorenzo Schönleber, Grigory Vilkov

- **The Digital Euro: News and Narratives**

with Yevheniia Bondarenko, Vivien Lewis, Christoph Meinerding

- **Bubbles and the Cross-Section of Stock Returns**

Second-year paper

PRESENTATIONS

- 2026: XXVII Workshop on Quantitative Finance; 3rd Structured Retail Products and Derivatives Conference.
- 2025: 2nd Frankfurt Summer School; PhD Frankfurt School Brownbag.
- 2024: Second Bonn-Frankfurt-Mannheim PhD Conference; PhD Frankfurt School Brownbag.
- 2023: PhD Frankfurt School Brownbag.
- 2022: Frankfurt School Brownbag.

RESEARCH EXPERIENCE

Deutsche Bundesbank

Research Assistant, Research Centre

Frankfurt, Germany

January 2026 – Present

Deutsche Bundesbank

Ph.D. Intern

Frankfurt, Germany

August 2024 – January 2025

Vienna University of Economics and Business

Research Assistant for Prof. Josef Zechner and Maria Chaderina

Vienna, Austria

December 2017 – June 2020

INDUSTRY EXPERIENCE

Deutsche Börse Group – Eurex

Quantitative Research Intern – Trading Design

Frankfurt, Germany

April 2025 – September 2025

Sberbank CIB

Intern, Structured Products Group

Moscow, Russia

April 2017 – August 2017

Schildershoven Finance B.V.

Intern, Fixed Income Research

Moscow, Russia

July 2014 – August 2014

HONORS AND ACHIEVEMENTS

- Ph.D. scholarship and full tuition waiver, Frankfurt School of Finance & Management.
- Full tuition scholarship as winner of the HSE Olympiad for students and graduates in Financial Economics.
- VTB 24 scholarship for academic excellence.
- Bachelor's thesis published in the collection of the best HSE graduate papers, 2015.
- Winner and prizewinner of economics contests and olympiads, including HSE and Interregional School Olympiads.

ADDITIONAL INFORMATION

Technical skills: Python, SQL, R, C++, MATLAB, Git, L^AT_EX.

Languages: English (fluent), Russian (native), German (A2).

References: Available upon request.