# Maximilian Fuchs

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## SUMMARY

I am a PhD fellow in financial economics at Copenhagen Business School and former research fellow at the European Central Bank. My interests lie in the nexus of financial markets, climate change and the macro-economy. I enjoy to solve problems leveraging large data and new technologies.

# **EDUCATION**

# Visiting Scholar, Climate Finance Initiative

2023 - 2024

New York University, Stern School of Business

Sponsor: Johannes Stroebel

## Ph.D., Financial Economics (expected)

2020 - Today

Copenhagen Business School

## M.Sc., Finance and Investments (among top 2% of my class)

2018 - 2020

Copenhagen Business School

Exchange: Shanghai Advanced Institute of Finance, China

# B.Sc., Business Administration and Economics (among top 10% of my class)

2013 - 2017

University of Passau

Exchange: Southwestern University of Finance and Economics, China

# Professional Experience

## Copenhagen Business School

Research Fellow 09/2020 - Today

- Conducted quantitative analysis on the economic and financial impacts of climate change policies leveraging large granular datasets and text-based survey information.
- Gained extensive experience in loan, equity, commodity, and option markets, and utilized various climate-related datasets for comprehensive empirical analysis, including data collection, processing (e.g., natural language processing via LLMs), and advanced econometric analysis.
- Presented research findings at multiple seminars and conferences across academic and policy-making institutions including the Bank of Italy and the European Central Bank.
- Taught capital markets courses at the master's level and supervised related master's theses.

## European Central Bank

Climate Stress Test Modelling, Research Fellow

05/2023 - 04/2024

• Conducted a study on the pricing of climate-related policy risks in Euro area banks' loan portfolios based on large, complex credit register data (AnaCredit). A draft is available upon request.

## Climate Stress Test Modelling, Trainee

09/2022 - 04/2023

- Contributed to the economy-wide climate stress test by analyzing bank loan exposure to climate policy risks based on short-term scenarios, including energy and other macroeconomic shocks.
- Analyzed financial and economic developments in the European energy sector during the Ukraine crisis, focusing on impacts on households and firms.

## Allianz RE

Climate Risk Pricing, Consultant

06/2021 - 09/2021

• Developed a model and new financial metrics for the pricing of and estimation of losses from physical climate risks in real estate, utilizing internal natural catastrophe models for sea level rise and river flood hazards.

#### Nordea Bank

Market and Counterparty Credit Risk, Analyst

11/2018 - 04/2019

- Tested pre-transaction simulations to evaluate sensitivities on various Value at Risk measurement methods.
- Improved data lineage for credit and FX securities.

## SKILLS

ProgrammingExpert: Python, Stata, I⁴TEX, SQL, Git Intermediate: Dash, HTMLMethodsNatural Language Processing, Panel Econometrics & Causal InferenceDatabasesWRDS, Datastream, Orbis, CRSP, Compustat, 13F, BloombergLanguagesNative: German Fluent: English Basic: MandarinPhD CourseworkEmpirical Asset Pricing with Machine Learning, Advanced Asset Pricing,

Advanced Corporate Finance, Advanced Financial Econometrics

RESEARCH

- Carbon VIX: Carbon Price Uncertainty and Decarbonization Investments with Johannes Stroebel and Julian Terstegge
  R&R at the Journal of Financial Economics
- Carbon Permit Holdings
- Climate Policy Action and the Pricing of Bank Loans with Martina Spaggiari
- Polluters are Short-Lived: Climate Risk and the Timing of Cash Flows

Policy Work:

• The Road to Paris: Stress Testing the Transition Towards a Net-Zero Economy. with Tina Emambakhsh, Simon Kordel, Charalampos Kouratzoglou, Chiara Lelli, Riccardo Pizzeghello, Carmelo Salleo, and Martina Spaggiari, ECB Occasional Paper, 2023

## Work in Progress:

• Carbon Market Intermediaries

#### References

#### Claus Munk

Professor of Finance Copenhagen Business School cm.fi@cbs.dk

#### Martina Spaggiari

Financial Stability Expert European Central Bank martina.spaggiari@ecb.europa.eu

#### Jesper Rangvid

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#### Johannes Stroebel

Professor of Finance New York University johannes.stroebel@nyu.edu