Daniel K Dimitrov

EDUCATION

University of Amsterdam **March 2018 – Nov 2022**
PhD. Candidate, Department of Macroeconomics

- *Three Essays on the Optimal Allocation of Risk with Illiquidity, Intergenerational Sharing and Systemic Institutions* [link]
- PhD supervisors: *Prof. Roel Beetsma* and *Prof. Sweder van Wijnbergen*.
- Job Market Paper: *Macroprudential Regulation: A Risk Management Approach* [link]

Tinbergen Institute **June 2018 – April 2021**
Research Qualification (MPhil Level)

- Specialization in *Advanced Econometrics* (with additional courses in Asset Pricing, Corporate Finance Theory, Macroeconomics with Financial Frictions, Neural Networks)

Tilburg University **Oct 2015 – Feb 2017**
MSc. Econometrics and Mathematical Economics

- Completed courses in *Stochastic Financial Models for Option Pricing; Cooperative Game Theory; Panel Data; Dynamic Models; Empirical Finance; Model Selection and Big Data; Numerical Simulation with Python; Dynamic Models for Econometrics; Asset and Liability Management*.

CFA Institute **Dec 2008 – July 2012**

- Completed all three levels of the Charter Financial Analyst (CFA) exam program – an international professional charter with focus on derivatives valuation, economics, portfolio management, financial statements, investment analysis, risk management, behavioral finance, ethics

Otto-von-Guericke University, Magdeburg **Oct 06 – Sept 09**
M.Sc. in Economics and Finance

- Specialization in Finance. Master Thesis on *Static Portfolio Optimization with Alternative Measures of Risk and Return*
- Tutor in Mathematics I and II; Teaching assistant in *Intermediate Macroeconomics* and in *Business Forecasting*
- Academic Supervisor at the DAAD for students form the Eastern Europe and Caucasus region, scholarships holders at the German Academic Exchange Service (DAAD)
- Scholarship holder of the Ministry of Education in Saxony-Anhalt

Otto-von-Guericke University, Magdeburg **Oct 03 – Sep 06**
B.Sc. in Management and Economics

- Specialization in Economics. Bachelor Thesis on *Active Labor Market Policies*

Summer/Winter Schools

- ***2021 Stockholm Business School***, Market Microstructure summer school with Albert Menkveld
- ***2019 University of Chicago,*** six week *Summer School in Open Source Economics* with lectures by Lars Hansen, Anthony Smith, Frank Kubler, etc. on economic modelling, computational methods with Python and open source infrastructure with Github: Dynamic Programming, Empirical Asset Pricing, Heterogeneous Agent Models, Machine Learning. Personal repository available here.
- ***2019 University of Chicago,*** *Summer School in Dynamic Structural Econometrics* with John Rust
- ***2019, 2020 University of Amsterdam,*** *Winter School in Mathematical Finance*

WORK EXPERIENCE

De Nederlandsche Bank **Amsterdam / Netherlands**
Graduate Researcher January 2021 – December 2022

- Research and develop in *python* a project on measuring systemic risk for the Dutch financial sector through data on Credit Default Swaps for the Financial Stability division [link].
- Research and develop in *python* a project on calibrating macroprudential capital buffers for European banks.

University of Amsterdam **Amsterdam / Netherlands**
Course Tutor January 2019 – April 2022

- Fiscal and Monetary Policy (2019, 2020, 2021, 2022)
- Macroeconomics I (2022)
- Mathematics I (2021)
- Bachelor thesis supervision (2019, 2020, 2021)

FactSet / FinAnalytica Inc. **Sofia / Bulgaria, New York / US**
Market Risk Consultant and Client Specialist Aug 2009 – Feb 2018

- Client implementations within Cognity, a proprietary platform for fat-tailed risk management and portfolio optimization solutions (acquired in 2016 by FactSet and currently part of their platform)
- Managing a portfolio of institutional clients, including pension funds, asset managers, investment banks, fund of funds managers accounting on average to 20% of the company's revenue, across the full product cycle – pre-sales, implementation, client services
- Worked closely with clients to research and developed customized solutions for portfolio and risk management projects:
    - Asset-Liability Management for US pension funds • Smart Beta risk-parity approach for several London-based and a US based index structurers • Trading costs based portfolio optimization with tail risk allocations • Developing factor models for alternative investments (hedge funds, MLPs, smart beta ETFs, private equities) and for global equity portfolios • Derivatives based hedging strategies for equity and fixed income portfolios • Stress testing framework for a variety of asset classes in anticipation of macroeconomic and market swings • Style analysis and Signal/Noise analysis for hedge fund managers with little transparency
- Worked with sales team to implement and present proofs-of-concept leading to the onboarding of major clients on the company's platform (among others Harvard Asset Management, AIMCO, Deka Bank). Worked with the sales team on 100+ global prospective clients (mainly North America and Europe).
- Leadership in implementation of key functionalities (risk budgeting, active risk measurement and attribution). Coordinating between clients, quantitative team and development teams
- Managed the client onboarding and system implementation within client organization.

KPMG Advisory **Frankfurt (Main) / Germany**
Internship in Financial Risk Management Oct 08 – May 09

- Implementation of an internal financial database system for risk management purposes in a Dekabank.
- Quality assurance for recently implemented algorithms for fixed income valuation
- Internal project for Knowledge Management within KPMG Europe.

COMPUTER SKILLS

Computational and Statistical: Python (*numpy, scipy, sympy, pandas, plotly* etc.) MATLAB, R, Stata, EViews, JMP
Financial Analytics: Bloomberg, Thompson Reuters, FactSet Workstation, Cognity Risk Management
Database: SQL; *Workflow*: Git, LaTex, Markdown

LANGUAGES

English – fluent; German – fluent; Bulgarian – native;