

# Sven van Holten Charria

Pre-doctoral Research Assistant at the Centre for Macroeconomics, LSE

[Email](#) · [LinkedIn](#) · [Website](#)

## EDUCATION

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**London School of Economics and Political Science** 2024 – 2025

*MSc Econometrics and Mathematical Economics (distinction)*

Selected modules: Econometric theory, Further topics in econometrics, Advanced macroeconomics.

**Erasmus University Rotterdam** 2019 – 2024

*Double BSc in Econometrics & Economics (honours)*

Selected modules: Advanced econometrics, Macroeconometrics, Macroeconomic theory, Time-series econometrics, Analysis, Probability theory, Statistical theory, Stochastic processes, Seminar in forecasting.

**Chinese University of Hong Kong** 2023

*Exchange semester, Department of Economics*

Selected modules: Machine learning for economics, Chinese exchange rate reforms.

## RESEARCH POSITIONS

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**Pre-doctoral Research Assistant** 2025 – present

*Profs. Ricardo Reis, Benjamin Moll & Jonathan Hazell, LSE*

- Assisted in research on “*Heterogeneous-Agent Macro and Expectations*” (Moll), “*Parallel Currencies and Financial Repression*” (Reis), and “*Empirical Macro*” (Hazell).
- Selected contributions: built reinforcement-learning solvers for neoclassical growth models, solved two-period and infinite-horizon parallel-currency models analytically and computationally, constructed historical postwar transfer panels and HANK-ready microdata, and encoded UK micro-prices for ML inflation forecasting.

## RESEARCH PAPERS

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**Perceived Income Risk and Its Dynamics Across the Income Distribution** — *Working Paper*.

- **Topics:** Perceived income risk, diagnostic expectations, heterogeneous-agent models.
- **Findings:** Risk perceptions show persistent, income-graded dynamics absent from realised earnings; specifically, surprises at the bottom raise risk far more persistently than at the top.
- **Application:** Embedded in an Aiyagari economy with state-dependent diagnostic expectations, the resulting excess precautionary saving suppresses consumption even after income recovers.

**Intuitive Inference: Enhancing Post-Double Selection Inference on Treatment Effects with Intuition-Based Penalties** — *BSc Thesis*, supervised by Stan Koobs.

- **Topics:** High-dimensional inference, causal machine learning, Monte Carlo simulation.
- **Findings:** Belief-based penalties integrate economic intuition into the post-double Lasso selection step, reducing variance in treatment-effect inference while maintaining similar bias.
- **Application:** Re-examining Donohue & Levitt (2001) on abortion and crime, the method yields a smaller, economically defensible control set with tighter treatment-effect inference.

**MRF-ARCH: A Machine Learning Approach to Forecast USD/GBP Tail Risk in a High Dimensional Dataset** — *Seminar Paper*, supervised by Prof. Robin Lumsdaine.

- **Topics:** Time-series econometrics, volatility forecasting, random forests, tail risk.
- **Findings:** A derived ARCH(p)–AR(p) equivalence embeds time-varying Random Forest parameters into ARCH, producing volatility forecasts with interpretable time-varying coefficients.
- **Application:** Applied to USD/GBP, the model traces how Brexit and COVID-19 each shifted baseline volatility versus shock persistence, separately identifying channels that GARCH would conflate.

## WORKSHOPS AND TRAINING

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- Audited LSE PhD macroeconomics courses (EC555 and EC556) 2025 – 2026
- Tools for Macroeconomists Summer School Aug 2026

## GRANTS AND AWARDS

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- Invited speaker (with Prof. Wouter den Haan), Erasmus University Trust Fund delegation to LSE 2026
- Full MSc scholarship funding: *Studiefonds Robert van der Rest, Fundatie van de Vrijvrouwe van Renswoude te 's-Gravenhage, Hendrik Muller's Vaderlandsch Fonds, Bekker-la Bastide-Fonds.* 2025
- Distinction, MSc Econometrics and Mathematical Economics, LSE 2025
- Honours, Double BSc in Econometrics & Economics, Erasmus University Rotterdam 2024
- Thesis ranked top five in cohort, Erasmus University Rotterdam 2024

## EXTRACURRICULARS

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- Financial Implementation Consultant (part-time), *Cevinio* 2021 – 2024
- Mandarin Language Study (HSK1–HSK4): *Shenzhen University, Chinese University of Hong Kong, and Beijing Language and Culture University* 2019 – 2024
- Statistics Teacher, *AthenaStudies* (VU Amsterdam and Erasmus University) 2021 – 2023
- Treasurer, TokoTalks Committee, *A.S.C./A.V.S.V.* 2021 – 2023
- Varsity Rower, *Skadi Rotterdam* (heavyweight crew, Dutch national level) 2019 – 2022

## MISCELLANEOUS

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**Languages:** Dutch (native), Spanish (native), English (fluent), French (B2), Mandarin (B2)  
**Nationalities:** Dutch – Colombian – Canadian  
**Test scores:** GRE Quantitative 170/170, Verbal 160/170